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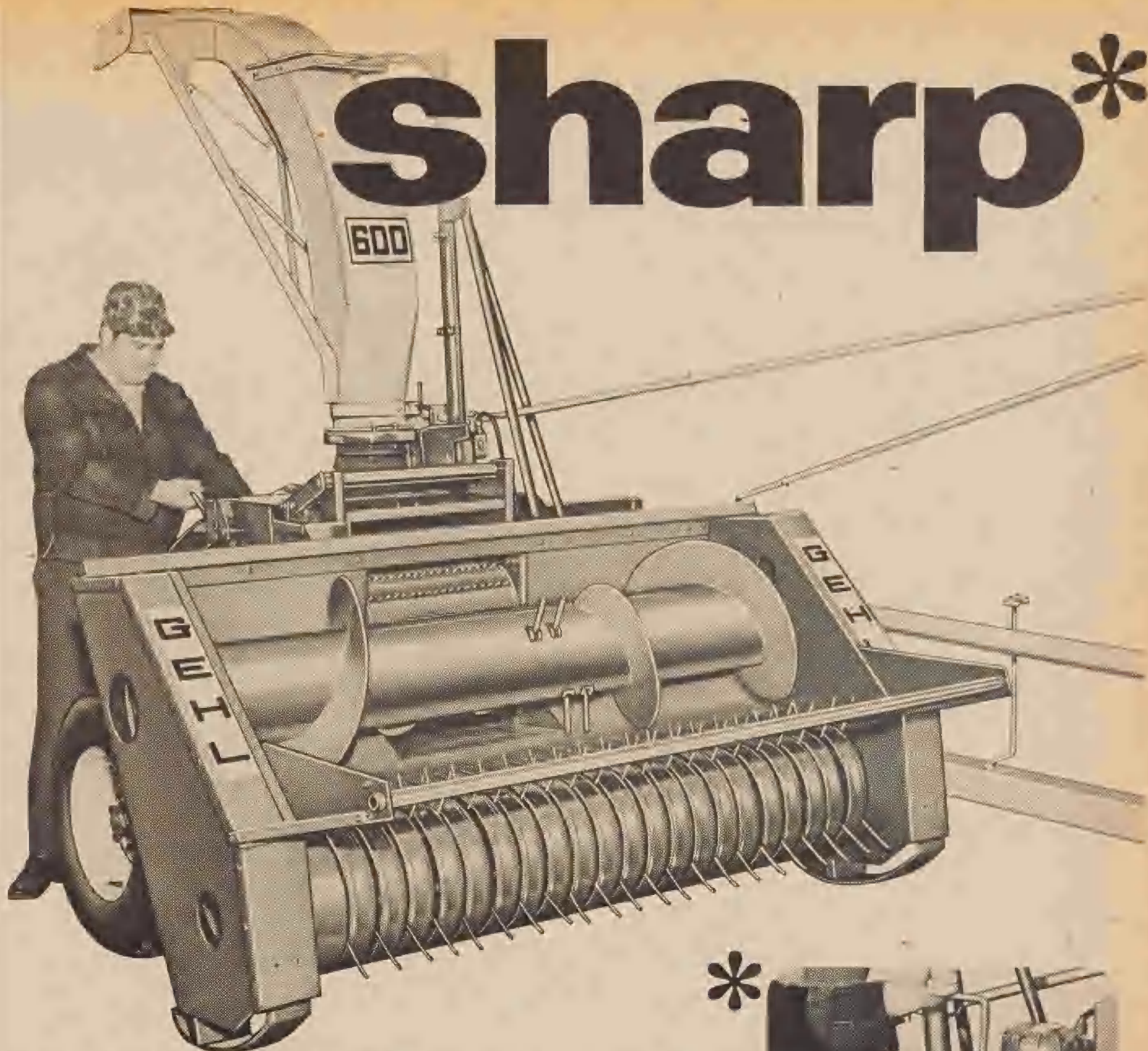
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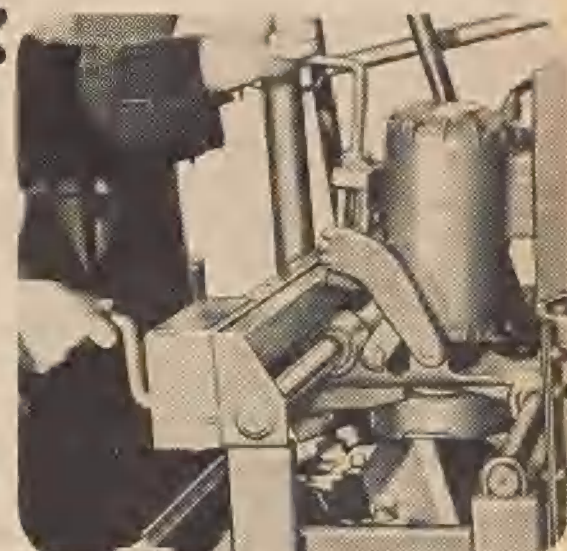
OUR COVER

The Bordertown Farm, owned by Milford Lawrence, lies under a blanket of snow near Brattleboro, Vermont. Photo: Herbert Shumway



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EDITORIALS

by GORDON CONKLIN



A GRIMM TALE

Once upon a time, three little pigs decided to go out on their own in the country known as Oinkland. One built a house of straw, another of wood, and the third laid up a home with brick.

Now, near that far-off land, there lived a crafty and vicious wolf named Smartkiller who had long ago been banished from the region because of his bloody ways. He sensed, however, that a change had come over the residents of Oinkland, and he decided to return.

As he sneaked along the road after being smuggled across the border, his malevolent glance raked the countryside left and right. Topping a hill, he spied in the valley below the first little pig in the process of thatching his straw house. To make a long story short, Ol' Smart huffed, and he puffed, and he blew the house down just before dining on the terrified little porker within.

Not long after that, the wolf was once again roaming the countryside seeking another victim... and, sure enough, was able to huff and puff away the flimsy wood protection erected by the second hapless little pig.

The third little pig, though, had run a tight ship in the navy... and he built a tough house at home. Smartkiller turned blue in the face huffing, and plumb dislocated his lungs puffing, but the house stood like a rock. Never daunted, the wolf came down the chimney... only to be parboiled in a giant cauldron of water that the third little pig had prudently placed on the fire hours before.

Now you'd think the story might have ended there with the steamy demise of Smartkiller, and with a round of huzzas for the gritty little pig. Alas... not so... an inquest was held at the insistence of the Civil Liberties Union. That organization claimed S. K.'s constitutional rights, as guaranteed by the 14th Amendment, had been violated. Furthermore, the CLU charged, the poor unfortunate had only been doing his own thing... however unpleasant that may have been for the flagrantly discriminatory residents of Oinkland.

The Black Panthers, of course, began immediately raising funds for a Smartkiller Memorial... to be dedicated to "the glorious memory of all pig-killers" and to bear the inscription "Off All Pigs."

A population-control group known as People Haters rallied to the defense of the late Smartkiller, pointing out that his activities had, after all, helped in the attainment of the "crucial objectives of Zero Population Growth."

The Sierra Club went on record as opposing all "exploitation of the environment," and condemning the actions of three individuals who had each built a new house when they could just as well have crowded into one, and that an existing dwelling.

The SDS representative was busy elsewhere and did not attend, but filed for the record a violent statement against violence. A few nights later, the third little pig's home was burned to the ground by a Molotov cocktail hurled through a window.

The third little pig was charged with manslaughter, the possession of a deadly weapon, and the application of unreasonable force. Overcome by a rush of massive guilt feelings, he solemnly announced (before he was led away to begin his long prison sentence) that all his remaining property had been transferred to a fund for the erection of a memorial to the noble wolf... upon the very spot on the

hearthstone where he made his supreme sacrifice on behalf of the lofty ideals of freedom for all mankind."

The television networks gave full coverage to the touching event. As the remorseful little pig made one of the most dramatic announcements ever heard in the forest, even the hard-bitten camera crew had not a dry eye among them... and the Trendex figures for the hour-long documentary presented at a later time rated it as the Program of the Century.

POLITICAL TILLING

New York farmers should be concerned about some proposed legislation... most often referred to as the Tills Bill... that is in the legislative hopper at Albany. Whether it will see the light of day outside committee in 1972 is questionable, but some modification may eventually reach the floor.

The proposal was partly derived from some existing laws in Maryland... primarily aimed at the activities of developers who strip large acreages of the sandy topsoil in that area, then allow it to erode as the development is gradually built. The Tills Bill also is designed to prevent developers from allowing erosion from construction sites... but it goes much further to involve farmers in its provisions.

As I get it, all farmers could... if this proposal were enacted into law... be forced to develop a complete farm plan, similar to the ones that have for years been worked out by Soil Conservation Service technicians for farmers requesting this technical help. The Tills Bill, however, calls for enforced implementation of the plans so developed, and penalties for landowners not following steps called for by the land-use blueprint. The idea is to mandate planning and protective measures to promote erosion control.

It seems to me that the proposal... although commendable in terms of some of its objectives... is comparable to hunting a woodchuck with a 155-mm howitzer! It's another case of the massive overkill so often being proposed nowadays to "solve" real or imagined environmental problems.

Surely we can devise ways to police flagrant violators of the principles of common-sense conservation... without strait-jacketing every landowner with a flock of regulations spelling out legal land-use practices right down to the last picked nit!

THE REFERENDUM

In the New York-New Jersey market during last October, milk production was up three percent as compared to a year earlier... and Class I sales were down by six percent. Production in the comparable period was the same or above in all but two North Atlantic States.

The Northeast appears headed for a market-glutting milk surplus just as sure as little green apples. Most dairymen are making money, and have developed a false sense of security... especially since filled milk has receded into the shadows for a time.

A substantial number of dairymen seem unwilling to accept mandatory deductions from their milk checks in order to finance a major program to stem the downward slide in fluid milk sales. This, in spite of a USDA-ADA research project (detailed in Economic Research

Service Bulletin ERS-259) concluding that, "Advertising milk does increase sales."

Further support of the need for milk promotion and product development appear in the report of the New England Milk Promotion Advisory Committee, chaired by Elmer Towne... and in the report of the New York-New Jersey Milk Promotion Advisory Committee, chaired by Howell Hughes. The latter recommends bluntly, "Milk promotion is highly desirable and profitable to producers with or without the threat of filled or substitute milk."

I can understand an older man who expects to retire in a few years... or a part-timer drawing most of his income from off the farm... not being deeply concerned about the long-run future of the dairy industry. But for those interested in the longer haul, and with major investments in dairy farming, it will seem tragic to me if the New York referendum vote on the dairy promotion order proves to be negative... and dairymen choose to ignore the clear danger signals of the marketplace. Uncle Sam may pick up the tab on a surplus-disposal program to keep dairying profitable in the election of 1972, despite a deteriorating market... but don't depend on it after that!

There are all kinds of safeguards built into the program being voted on in the referendum... opportunities for modifications (and even later termination) at the request of producers. When all the pros and cons are compared, I end up agreeing wholeheartedly with Commissioner Don Wickham when he officially declared that the dairy promotion order "is in the interest and general welfare of milk producers and other people of the State."

THE REAL VILLAINS

The new Secretary of Agriculture, Earl Butz, caught an awful lot of flak as the opposing political party laid the groundwork during Senate hearings for what it hopes will be the alienation of farmers from President Nixon in 1972.

Since long before I can remember, a favorite indoor sport in rural America has been to seek some sinister villain upon which to heap blame for "the farm problem"... generally meaning too much production, accompanied by too-low prices. Wall Street, Corporation Farming, Big Business, and the Middleman have all taken their share of licks... but, in recent years, The Government (personified to farmers by the Secretary) has been the recipient of most of the pounding.

The truth is that there are two prime movers creating "the farm problem"... the exploding technology that has revolutionized agriculture in the last 50 years, and the personal independence so fiercely valued by many farmers.

Farmers constantly and understandably scheme to cut their individual costs of production per unit... and have done so largely by doing such things as adding fertilizer, which sharply boosts output per acre. Then, having way overproduced, they jealously guard their independence of action... which in turn hamstringing really effective efforts at bargaining and supply management.

All people, farmers and non-farmers alike, react to such a situation in similar fashion... blaming someone else (anyone will do) for the problem. I couldn't begin to count the numbers of politicians from all parties who have made a successful career out of eloquent speeches conjuring up visions of bogeymen and demons (always in the opposing political party). A Secretary of Agriculture, above all else, needs a very thick skin in order to survive... because he is the "Sock Symbol" for an agricultural industry over which he has a minimum of control.

Mr. Secretary, never mind all those soybean, wheat, cotton, and corn growers... let's get going on increasing the price of milk in the Northeast!

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Northeast FARM EXPERIENCE



A Farmhand hay-handling system is used at the Dudley farm... picking up a "pad" of eight wire bales at a time.

LIKES HAY

Robert Dudley operates a 130-cow dairy farm near Cato (Cayuga County), New York. After a fire wiped out a big conventional barn a few years ago, Bob built a barn with 123 free stalls.

He used scrap pipe (3-inch) set in concrete for the rear support of plank stall partitions... each pipe notched with a welder so that the plank dropped easily into it. Then he bolted the front of the plank to the barn wall; partitions can thus easily be removed to help a cow that gets cast because of milk fever or some other cause.

A hundred bales of hay can be stored above one row of free stalls, positioned so they can easily be dropped into the feed bunk. This bunk has 94 feet of length for silage, 48 feet for hay (cows eat from both sides).

Graduate

Bob graduated from Cornell's College of Agriculture, and took some animal nutrition courses, but he admits, "Sure, I think it's possible to successfully feed corn silage to dairy cattle as the only roughage, but I think that I stay away from a lot of grief by feeding hay and corn silage year-round and some green-chop in the summer. The management of a dairy herd getting only corn silage for roughage has to be very sharp to prevent nutritional problems... and I don't have the time or inclination to accept that challenge, especially when feeding some dry hay will take care of it."

Cows have free-choice hay at all times... in winter, averaging about 10 pounds per cow per day, and about half that during the summer when legume and grass green-chop is also fed daily. High-moisture ear corn is a major source of high-energy feed for the Dudley herd.

Bob sells a considerable amount of hay, and has an unusual system for handling it. He uses a wire baler,

and each bale weighs 70 to 80 pounds. A bale accumulator hitched to the baler assembles eight bales in a "pad." After the field has been baled and "padded," a bale handler mounted on the front of a tractor picks up one group of eight bales after another... from the top by means of large hook-like devices... and positions the "pad" on truck or wagon.

Hay is stored in a building having only a roof (no sides), with the weight of hay supported by the ground. The same device that positions the "pads" on wagons can also place them 13 bales high at the hay barn... and remove them for shipment or feeding.

HMC EXPERIENCE

Not far from LeRoy, New York, is the farm of Carlos ("Red") Page... who produced 2,347,721 pounds of milk in 1970 from his 149 cows.

Along with many northeastern farmers, he has been using some form of high-moisture corn for feeding cows. In 1967, he fed ground ear corn from a conventional silo, but found it had heated and caramelized. Serious butterfat depression resulted... an experience that convinced Carlos he should go to an oxygen-limiting silo.

By experience, he also found that ground ear corn doesn't flow like shelled corn. "A scoop shovel is the only sure way to move it," he comments.

Roller Mill

In 1970, Carlos filled a 20x60 Harvestore with high moisture shelled corn (HMSC). At unloading, he runs it through a roller mill on the way to the feed bunk. When the herd has alfalfa haylage available, he puts enough protein supplement (soybean oil meal) with HMSC to make up a grain ration with 14-percent protein. If haylage is not avail-

able, he opens the protein throttle to 20 percent.

Carlos has a self-feeder for hay in the free stall barn... the herd averages to eat 6 to 7 pounds of dry hay per cow per day. There are 200 acres of hay crops to be harvested in 1971: first cutting will go into silos. Corn silage and high-moisture corn will come from 225 acres of that crop.

Young cattle at the Page farm receive oatlage or haylage as the only roughage. Calves are started in a calf barn where a winter temperature of about 50 degrees is maintained, by supplementary heat if needed.

Five Groups

There are actually five groups of calves... one group in elevated individual stalls (each 22x48 inches) having wood-slat floors. There are four other groups in free stalls in the same building, divided according to animal size.

In July of each year, all animals are removed from the building and it's rested to help prevent the build-up of calicivirus disease organisms. Slat floors are changed in each stall after each calf leaves that stall, and before a different one comes in.

Another barn, this one a metal-sided pole structure measuring 50x120 feet, houses heifers. There are 82 free stalls here, all equipped with rubber mats. Heifers are grouped by age... one group ranging in age from six months to breeding age, and the other group made up of bred heifers.

It's a giant job to provide roughage and grain for the numbers of livestock at the Page farm... but equipment provides giant capacity to get the job done. Two weeks, reports Carlos, is all that's normally needed to harvest 200 acres of hay crops for ensiling! — G.L.C.

JONESVILLE FARM

Harlan Jones operates a dairy farm near Cazenovia, New York... a farm where fire destroyed most of the barn on August 9, 1970. No question about rebuilding, but any dairyman faced with a clean slate wonders what type of barn to erect.

The Jones family have been purebred Holstein breeders for a long time... Harlan's grandfather used the Jonesdale prefix... his father, William (now retired), used Jonesvale... and the present designation on registration papers is Jonesville. Harlan sold 13 animals for breeding purposes in 1970, the top one, a four-year-old cow, bringing \$1,175.

"If you want to see a cow, and know where she is, you can't beat a comfort stall barn where animals are confined to one stall," Harlan comments. "I like free stalls for heifers, but not for cows." So the choice was a barn measuring 38x218 feet, equipped with 74 comfort stalls to house the milking herd.

Milking Parlor

There are four "blocks" of stalls... three with 19 each, and one with 17. Harlan, although preferring a conventional stall barn, wanted to take advantage of the labor efficiencies and easier milking offered



Harlan Jones uses a quick-release device to unhook groups of cows to head 'em for the holding area and milking parlor.

by a milking parlor. Therefore, cows are released by groups to go to the holding area, then to the double-four herringbone parlor, where one person milks with four units.

An unusual release device enables one person to unhook the neck chains of a whole group of cows at one time. These chains fasten to hooks on a long pipe... rotation of the pipe drops the chain off the hook and releases the cow. About three pounds of grain is fed per cow in the parlor... just enough to entice 'em in easily.

The winter ration consists of corn silage, haylage, dry hay (averaging 10 pounds per cow per day), and grain. Calves get whole milk until they're six weeks to two months of age, then they're switched to hay and grain... no corn silage until they're a year old.

The Jonesville farm is one that builds the image of agriculture in the eyes of non-farmers... kept up in great shape, neat and well-painted. It's a sign of people who take pride in their work! — G.L.C.

SPECIAL BARN

A barn housing heifers and dry cows at the Baumgartner and Smith farm near Pompey Center, New York, is designed to permit quick and easy feeding of corn silage from a nearby bunker silo.


The 48'x80' structure, which contains 56 free stalls (each measuring 4'x7') utilizes some unique construction concepts. Four rows of square-sawn pressure-treated 4"x4" posts, spaced 4' on center, serve a dual purpose. They support the roof, and also form the rear dividers in each of the four rows of free stalls.

No Truss

The posts also eliminate the need for trusses and, because of the short spans, a 2"x6" rafter is sufficient. Plywood panels, "hung" from the edge of the rafter, enclose each side of the building, in a fashion not unlike the "curtain wall" construction now employed in many high-rise buildings.

Drop windows, spaced at intervals along the length of the building, are cut from and hinged back to each exterior panel. Plastic roof sheets provide ample interior light. Ten-foot alleys separate the two

(Continued on page 8)



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"Skip" Smith and son Jimmie stand by feed bunk at end of barn housing bred heifers and dry cows.

Farm Experience

(Continued from page 6)

outside rows of free stalls from the double inside row.

They "raised the roof" at one end of the structure, to permit the installation of a ten-foot overhead door at the side of the building for easy access by equipment. The door opens on a 16-foot-wide cross-alley, running the full width of the barn. This end cross-alley serves two purposes . . . a feed alley, and as a scrape-path to the manure push-off. The alley is edged by a 4' box-type silage bunk filled by a front-end loader directly into the bunker silo.

Adjacent to this cross-alley is an 8'x16' hayrack, placed at the end of the center double row of free stalls. The roof is overhung to cover the

silage bunk on the open eastern end of the building. A ridge vent, which runs the full length of the building, encourages plenty of air movement.

Silo

A 36'x84' bunker silo . . . constructed of square posts, and tongue and groove pressure-treated plank sides . . . completes the unit. The 84' length was selected to permit efficient use of lumber with a minimum of sawing.

Sixteen thousand dollars (at last year's prices) bought the package . . . the entire job . . . barn, stalls, wiring and water, the bunker silo, a retainer wall for the manure push-off, and the concrete post between bunker and feed bunk.

I visited with operator Schayler "Skip" Smith about the operation of this new unit. "We're very pleased

with it," he reported. "There's not much we'd change. We do wish the roof was overshot just a little farther over the silage bunk. We get a little drip during a rain, and in the winter, some snow. We clean out the feed bunk once a week anyhow, but even if we didn't, they'd probably clean it all up."

Timesaver

"This new barn sure's a timesaver. Last winter, with about 40 head, we cleaned twice a week . . . about a half-hour actual scraping time. We can feed them in 10 or 15 minutes . . . figuring the time it takes getting the tractor started. A man ought to spend that much time down there anyhow looking them over!"

"We throw 10 or 12 bales in the hayrack once a week. They do well on straight corn silage, but we like a little hay. It probably helps with mineral supplementation."

"Our heifers and dry cows were real clean last winter, despite the fact that we only added bedding two or three times. There's a gravel base in the free stalls. Had no health problems at all."

Separated

Calves and younger heifers at the Baumgartner and Smith operation are kept in other quarters. They designed this unit for the older animals . . . dry cows and bred heifers. Last winter, the two age groups were not separated, but they readily can be. In fact, the heifers were split from the dry cows last summer to give them access to both the barn and a pasture.

With only 40 head in the barn last winter, there was ample feed-bunk space, and the animals did not have to be moved out of the barn while cleaning. However, Skip thinks that when they reach capacity, they may have to drive them out.

If the 48-foot-long bunk proves too cramped for feeding 60 head on one side only, the animals can be let out in the concrete yard to eat from the other side as well. In fact, the layout is designed to blend well with a self-feeding program from the bunker silo. — William Quinn



Myron Brady takes a look at his field corn.

CASH CROPPER

Myron Brady, who lives at Nunda, New York, farms a lot of acres . . . most of them rented . . . in the Genesee Valley, and on the hill beside it. Crops in 1971 included 520 acres of peas, 130 of wheat, and 1,100 of field corn. He has moved toward crops allowing a maximum of mechanization.

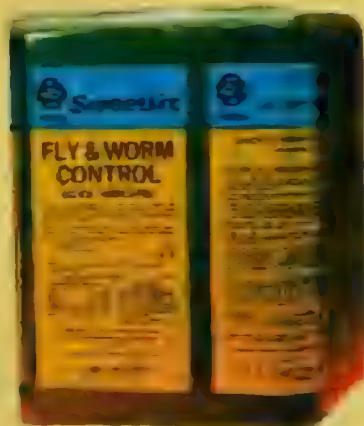
There are four field-viners for

(Continued on next page)

Top Cattlemen Use STALEY PRODUCTS

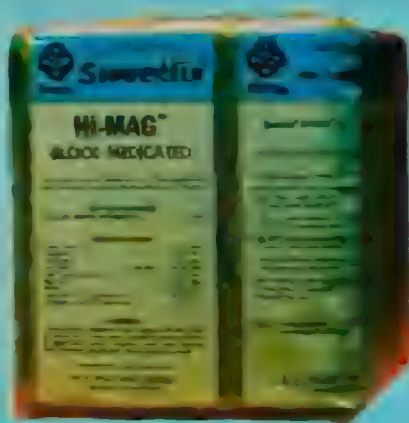


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Farm Experience

(Continued from page 8)

harvesting peas... an eight-row planter for corn, as well as a no-till planter... a combine handling four rows of corn (or a big small-grain head)... and more than a dozen tractors. There are also three batch dryers for shelled corn, heated by propane gas. Some custom work is also hired... such as the herbicide application (Sinox) laid down by helicopter when peas were 4 to 6 inches high.

Myron planted 250 acres of no-till corn in 1970, dropped down to 100 in 1971. The typical sequence of events on other corn ground this year went like this: spread on stubble 175-200 pounds per acre of 62-percent muriate of potash, plus 350 pounds per acre of 45-percent urea... then disc once, and plant corn with a starter fertilizer of 200 pounds per acre of dry 8-32-16.

The moldboard plow was used on no corn ground in 1971, but Myron plans to use it on all corn land in 1972 in order to turn under an accumulation of cornstalks.

Atrazine, plus 2,4-D and oil, make up the herbicide mixture.

With no serious leaf blight... and a bit of luck... Myron's objectives include yields of 150 bushels per acre of dry shelled corn from the river flats, and a comparable yield of 100 bushels in the hills. — G.L.C.

RURAL MUSEUM

At the village of East Meredith (Delaware County), New York, is a museum of unusual interest to those who enjoy early Americana. Owned by Kenneth Kelso, also of East Meredith, it features a mill with some unusual equipment all under one roof.

A wide variety of things were once produced here... milled grain, dowsing, shingles, mouldings, barrels, handles for hand tools, and many more. Some of the equipment used in the mill was handmade at the site, and probably has no duplicate anywhere.

A huge overshot water wheel that really works is of special interest... as is an enormous array of antique bottles, washing machines, and hand tools used by generations long gone. There are original patterns here that millworkers used for fashioning all kinds of wood objects... swath-boards, mower pitmans, cutter runners, and many more. Anyone enjoying woodworking will be fascinated by a visit to the Kelso museum.

The original mill was built in 1820,



This giant waterwheel was once used to power the machinery at the mill (now a museum) near East Meredith, New York.

then a grist mill was added in 1870, and some further additions were erected in the late 1800's. Part of the operation continued up until 1965. There are actually eight buildings that house the collection.

The power supply has included, over the years: water power from the big waterwheel, steam, gasoline (there is a huge 40-hp single-cylinder engine), and electric motors. At one time, the mill generated the electric power for East Meredith before the highline came through.

The village is located east of Route 28, north of Delhi. The museum is open May 1 to October 31, or by appointment at other times... Kelso's phone number is 607-278-5395, address is East Meredith, New York 13757. — G.L.C.

Kenneth Kelso has had this 40-hp engine running, but reports it's a tough one to crank!



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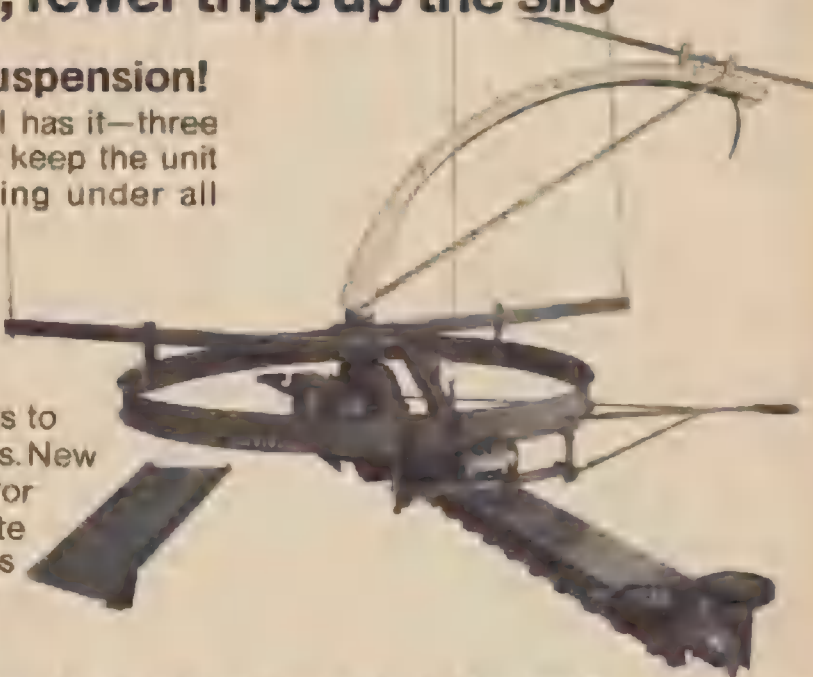


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The dairy cow

CAN SHE FEED HERSELF?

by Dr. Gilbert H. Porter*

THE rate of improvement in milk production has been accelerating since 1950. The sharpest increase in output has occurred since 1960 (see table).

U.S. Dairy Production

Year	Number of Milk Cows (000's)	Yearly Average Milk/Cow (lbs.)
1930	22,443	4,510
1940	24,940	4,625
1950	24,743	5,292
1960	17,543	7,000
1970	12,509	9,388

A portion of this improvement pattern must be attributed to variables such as more stringent culling, and a breed preference shift away from the high-test breeds. Nevertheless, most people would agree that a major portion of the improvement is attributable to constantly upgraded breeding, feeding and management practices.

Over the past 40 years, there have been at least five key areas of research that have played significant roles in the advancement of dairy cattle feeding. They are:

1. Mineral and vitamin requirements and metabolism.
2. Forage quality and the development of silage as a feed.
3. Rumen digestion and functions.
4. Utilization of non-protein nitrogen.
5. High-energy feeding during early lactation.

Less Than Optimum

We have historically fed most of our dairy cows in a manner that has probably kept us from realizing optimum feed efficiency . . . and, perhaps in many cases, optimum milk production. Essentially all biological systems function most efficiently when their environment and nutrient sources produce a system that provides a uniform level of physiological activity.

To accomplish this most effectively with dairy cattle, it is necessary to create a situation where they can eat, at will, a completely-balanced ration. Such a ration can well be called

a Total Mixed Ration; we call it the TMR concept. The author believes that this concept will soon be recognized as a dairy cattle feeding advancement that will place it with those five key areas of research outlined earlier.

TMR Research

There is nothing new about formulating, mixing and giving animals free access to completely-balanced rations. Producers of poultry meat, eggs, slaughter cattle and slaughter lambs have been doing this for years.

It is important to understand the difference between what are called **Complete Feeds** and **Total Mixed Rations**. A "complete feed" is usually considered a commercially-prepared mixture, to be fed as the sole ration, which contains a non-homegrown source of fiber, and the practical size is small. The majority of such feeds are available only in pellet form.

The "total mixed ration" involves the practice of blending the concentrate and homegrown forage portions of a dairy cattle ration to obtain proper balance of all nutrients prior to feeding. The TMR is then offered to the cows on a free-choice basis. Total Mixed Rations are normally blended in a slow-speed mixer (mobile or fixed). Standard forage wagons with a side-unloading chute perform the same job satisfactorily.

"Slug-Feed"

The majority of cows receive "slugs" of different kinds of feed throughout the day at irregular time intervals. This does not create in a cow's paunch (rumen) the uniform environment mentioned previously as needed for optimum biological-system efficiency.

On the other hand, most dairymen with unusually high-producing herds feed their cows along the lines of the TMR concept. They parcel out all their feed . . . forage and grain . . . in small amounts, and feed them often. They do not "slug-feed" their cows. How often have you wondered just how these milkers develop such high records? One important reason is related to how they feed their cows!

As dairymen have gradually shifted to larger herds, more cows handled per man, milking parlors and free-stall housing, it has become increasingly difficult to give individual cows the kind of attention we have previously stressed as desirable. Over the years, we have created a need for a feeding system that will give the individual cow an opportunity to effectively feed herself. The Total Mixed Ration concept gives her that opportunity.

Potential Benefits

There are several potential nutritional and economic benefits inherent in the TMR concept:

1. Ideally adapts to more complete mechanization of feeding systems — improved labor efficiency.
2. Improves odds of increasing total feed efficiency — help is needed here.
3. Improves production if a low level of grain consumption in the milking parlor is a limiting factor — it is in many herds.
4. Minimizes metabolic disturbances triggered by extreme consumption ratios of forage to grain early in lactation due to cow preference.
5. Improves cleanliness and milking efficiency through elimination of feeding in the milking parlor.
6. Makes us focus more attention on the nutritional soundness of the feeding programs.

A decision to use the TMR concept must not be taken lightly. The potential benefits are encouraging, but they cannot be realized unless careful attention is given to such details as forage availability, forage nutrient composition, ration formulation and density, required mechanical

equipment, ability to group cows, and herd milk-producing potential. Any dairyman considering this concept should discuss it thoroughly with people who clearly understand the practice.

A recent research report indicates that the TMR concept is worthy of careful consideration:

Total Mixed Ration Research (University of California)

	Treatments	
	Control	TMR
Number of cows	22.	22.
Milk, lbs./day	45.3	48.4
Milk Fat, %	3.69	3.69

During the trial summarized above, the average grain and alfalfa hay consumed per cow per day by all cows averaged close to 16 and 32 pounds respectively.

The important point in this research is that essentially the same amount of feed consumed resulted in 3.1 pounds more milk per cow daily when fed as a Total Mixed Ration. Efficiency of feed utilization was improved. Normally, these cows had all been fed hay in a bunk and grain in the milking parlor. Such a feeding program was followed in the "Control" treatment.

This feeding concept is of such interest that we have developed a major research thrust at our Research Center in Fabius, New York, to help provide the experience and research information needed to assist interested northeastern dairymen to take advantage of the Total Mixed Ration program effectively. We feel it will become an integral part of the total dairy enterprise system on an increasing number of dairy farms in the Northeast during the 70's.

FREE STALLS VS. STANCHIONS

Cornell researchers obtained business figures from 509 New York State dairy farms in 1970 . . . 117 of which had free stall barns. Here are some figures derived from the

summary of information from those farms, and from the 392 having other types of barns (predominantly stanchion or tie stall).

(see attached table)

COMPARISON BY TYPE OF BARN 509 New York Dairy Farms, 1970

Item	Farms with free stall barns	Farms with other types of barns
Number of farms	117	392
Size		
Man equivalent	2.8	2.0
Number of cows	94	56
Lbs. milk sold	1,200,000	710,000
Milk Produced		
Lbs. milk sold per cow	12,760	12,670
Lbs. milk sold per man	428,000	355,000
Capital Use		
Land & building value	\$95,300	\$58,000
Total inventory value	\$196,800	\$119,200
Total inventory per cow	\$2,090	\$2,130
Total inventory per man	\$70,300	\$59,600
Total inventory per cwt. milk	\$16	\$17
Cost Factors		
Labor cost per cow	\$163	\$186
Machinery cost per cow	\$172	\$177
Labor & machinery cost/cwt. milk	\$2.62	\$2.86
Financial Summary		
Labor income per operator	\$11,078	\$7,213
Receipts per cow	\$1,070	\$1,010
Expense per cow	\$790	\$720

*Director of Research, Agway Inc., Syracuse, New York.



KETTLING THE ROAD

It was a sunny, but cold, winter morning in January, 1914 after several days of a blizzard. The snow was deep, and the sleigh track high. As my two sisters, brother and I walked out of the yard on our walk of one-and-a-half miles to the Cottage school, Dad called, "Stop and tell Mr. Hooker that I will be over as soon as I finish chores to help kettle out the roads."

Dad had a heavy set of logging sleighs (in this section called bobs in those days), and Mr. Hooker had a cast iron kettle for heating water, about three feet across, and just right to fasten near the back of the sleigh. With heavy log chains, the kettle was placed so that it dragged where the right-hand sleigh track would be. Mr. Hooker bundled up in warm clothing and climbed into the kettle . . . to steer it as much as possible, and for added weight to push the snow out of the track.

Jingle Bells

With Dad driving the heavy team of work horses, and Mr. Hooker riding the kettle, they kettled to Markhams (the railroad station three miles away) and back again. This made heavy, deep kettle marks for the horses to walk in, and for the sleigh runners to run in.

As we came out of the two-room school that afternoon, the kettle crew was turning around in the school yard. We ran over and climbed onto the sleigh, rode across the road, and made two trips around the Cottage Methodist Church so people could drive horses to the church sheds. We then went around the Baptist Church to make those sheds available, and then made several trips in and out of the Cottage Grange Hall driveway.

Institute

Why all the plowing on this day? It was Thursday, and a two-day Farmers Institute was to be held on Friday and Saturday. Two professors from Cornell were to be the speakers.

The next morning, Dad met the 9:30 Buffalo train at Markhams, picked up the speakers, and drove them to Cottage. As soon as they arrived, our teacher had all the girls, and the fifth grade, go downstairs with another teacher, and he took us boys to the Institute. I was twelve years old and in the seventh grade.

I did not remember much about the Institute, but Dad had asked one of the men to stay with us after the night session until it was time to drive to the Saturday session. I liked this man very much.

It was my first contact, outside of my teachers, with a college man, and he had a great bearing on my life. In the fall of 1919, I entered the New York School of Agriculture at Alfred. My father let me go mainly

because this same man was then director at that school.

His name was Carl E. Ladd, who later became dean of the College of Agriculture at Cornell University - Ralph Smith, South Dayton, New York.

LIQUID HANDLING

The item you quoted from the 1871 issue of AMERICAN AGRICULTURIST interested me . . . especially the "manure cistern."

When we moved here 50 years ago, there was a manure cistern. The barn was built on a side hill, and across the driveway from the barn was the pigpen. Beneath this was the "cistern." The cracks in the floor

allowed liquid to drain off, and an underground pipe carried all the liquid from the cow-drops into it.

The man we bought the farm from used a sprinkling wagon, drawn by two horses. The wagon could be backed under the cistern and the

liquid manure drained into it.

I think I have heard that the neighbors even then complained a little when he went on the fields with his sprinkling wagon! - Mrs. Eugene Gregory, Binghamton, New York.

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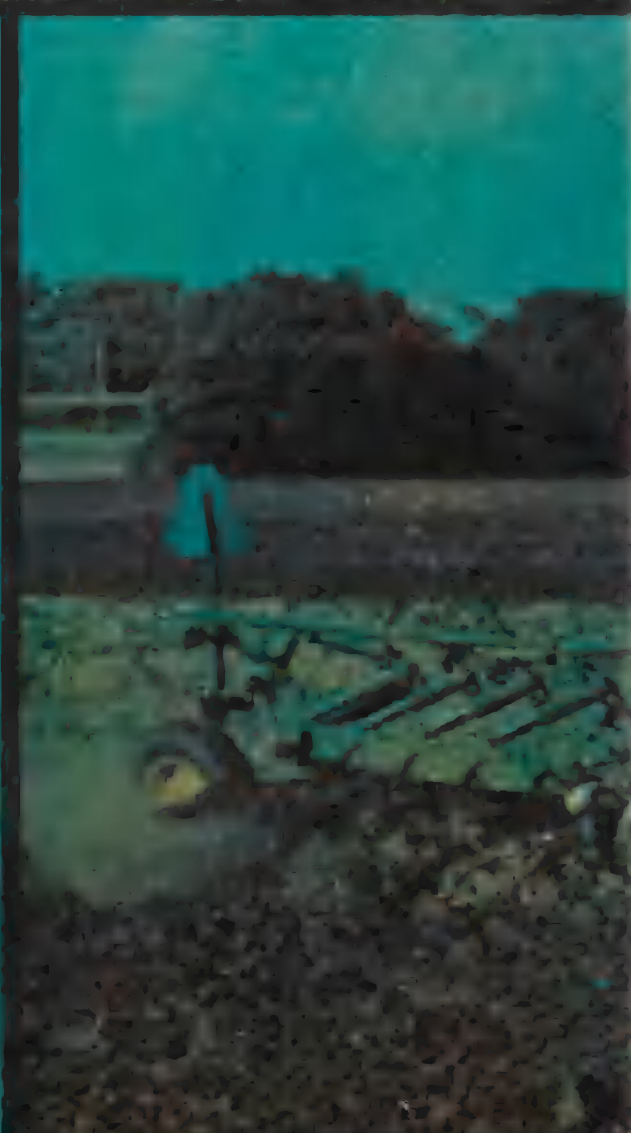
Long-Life Engine. Gas or Diesel, the 2030's engine is well-qualified to work for years with normal, by-the-manual servicing. It has wet-sleeve cylinder liners that control cylinder temperatures more efficiently than cast-in-block cylinders. Its short-stroke crankshaft puts great strength between the four connecting rod journals and the five main bearings. The 2030's exclusive engine-balancer system damps out destructive and uncomfortable vibrations. In short, it has everything needed for a long working life.

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AGRICULTURAL DISTRICTS

by Howard Conklin and Ernest Cole*

AGRICULTURAL districts can't put tight fences around agricultural areas, but they can help rural people resist urban encroachment.

There are many communities in New York where farmers still form an important proportion of the population, and where many of the non-farmers work for businesses related to farming. Farmers in these communities are building new barns, removing hedgerows, liming, picking stone, draining land, and making the other long-range investments needed to maintain a successful agricultural industry. Agribusinessmen are investing new money in showrooms, shops, storage facilities, processing plants, and the other items needed to keep their part of the industry efficient . . . now, and in the future.

Agricultural people in these communities maintain strong local units of such organizations as Farm Bureau and the Grange. They also play a major role in general community affairs, from the firemen's picnic to the operation of local government.

Life on the farm and in town is different than it was 50 years ago. Farms are bigger; farmers buy more and produce more, and capital investments are higher. Agribusinesses are bigger and more streamlined . . . and, of course, there are more neighbors who work in "the city."

But life is not so different as to be unrecognizable. Most farms are still operated by families rather than boards of directors, and most community relations are still on a person-to-person basis. And the city workers who live here do so because they like rural life.

There are many other communities in New York where agriculture and ruralness have been dismantled. Always the hope in dismantling is to make way for something better . . . and sometimes a vibrant and satisfying urban community has been built to replace what was dismantled.

Negative

Many times, however, the dismantlers, though they had great dreams, were not able to put much in the place of what they took apart. In these places we find houses, gas stations, hamburger joints . . . and all sorts of other things . . . all somewhat junky, and all intermingled in strings along the roads. Farm buildings are decadent and obsolete; only selected fields are still used and these mostly by itinerant operators. The rest of the land is in brush and weeds.

But worse, togetherness has gone. Few people know each other or care to get acquainted. Their social ties are to groups outside the community. The Granges, Farm Bureau units, community picnics, and sometimes even the churches are gone.

Agribusiness has disappeared there, too, and the few who still farm not only can find no one to visit with about matters of mutual concern, but find it hard to get a barn roof fixed

*New York State College of Agriculture and Life Sciences.

or a tractor repaired. Even a sick cow creates a major problem because the nearby veterinarians have become specialists in cats and dogs.

Unfortunately, there are no early prospects for converting many of these dismantled and unreconstructed communities into anything better. Agriculturalness and ruralness are rather fragile . . . once gone, they seldom return. Current prospects for increases in population and business fall far short of the projections folks were making when they started taking these communities apart. Most of them will remain torn up, junky places for a long time. And those who sold high-priced frontage must learn that all they now have is very low-priced "backage."

Fever

The development fever, the speculative psychosis, usually far outruns what got it started. Two-and-a-half decades of prosperity and population growth developed a lot of momentum. All land, some soothsayers predicted, was soon to be worth at least \$1,000 per acre . . . and farming was too extensive a land use to last much longer.

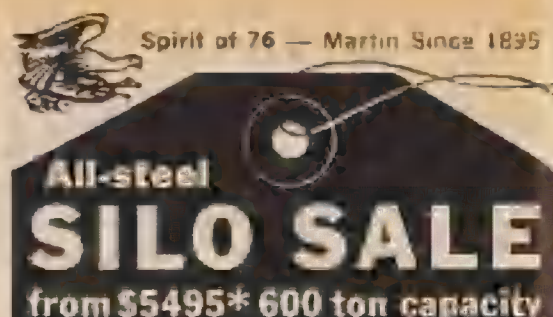
The once-soaring curve of population growth definitely has started to level off, and there is a growing realization that New York is a big state. It will be a long time before it can be covered with wall-to-wall city! Still the speculative momentum persists.

If your community is in the path of this momentum, consider seriously the possibility of using an agricultural district to head it off. An agricultural district puts the dismantlers on notice that you want to stick with rural life and help to sustain a strong agricultural industry.

There are lots of places where the dismantlers can go, so it doesn't take a lot to turn them away . . . there are nearly 25 million acres in the State that farmers do not need for farming. And those who are interested in agriculture . . . feed, fertilizer, machinery, and seed dealers, as well as milk companies and other agribusinessmen . . . will prick up their ears when a community goes formally and legally on record as wanting to stay agricultural. So will capable farmers who have been chased out by dismantlers elsewhere.

Agricultural districts do not have big teeth, but when development and speculation are over-reaching themselves . . . as they are in many areas of the State today . . . these districts hardly need to provide more than good moral support to those who would resist. Agricultural districts can provide the occasion for rural people to rededicate themselves to the reasons they are rural, and to make this rededication a matter of public record.

For details, write: Department of Agricultural Economics, Warren Hall, Cornell University, Ithaca, New York 14850 and ask for a free copy of A.E. Extension 595.



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VEGETABLES



changing the plastic. The Dickman Brothers in Auburn, New York, are reported to be doing the same.

Potato Diet — A living testimonial to the value of potatoes in the diet is Robert Luescher, Michigan State University graduate student. To prove that potatoes are not fattening, and that they have plenty of usable protein, he ate 88 pounds of them in 22 days... about 4.4 pounds per day.

Potatoes themselves totaled only about 1,300 calories per day. He had to add butter, cream, mayonnaise and oil, plus a half-gallon of carbonated beverage and 100 grams (about 4 ounces) of beer to bring his daily intake up to 3,600 calories.

He ordinarily burns up 3,400 calories per day, but ate an extra 200 to make sure the protein he was eating wasn't used for energy.

Prior to the potato diet he also went on a diet low in animal proteins to compare the two as protein

sources. There was no difference between the two. Rigid health checks were conducted throughout the tests.

After eating more potatoes in three weeks than most of us eat in a year, Luescher is smiling, trim and healthy... and he still likes potatoes!



SPRING GOLD Sweet Corn

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With Harris' Spring Gold, you can enjoy sweet corn of delightful sweetness and flavor right at the start of the season—and it looks just as appetizing as it tastes!

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The use of blacklight lamps offers promise in controlling pests without the use of field-applied pesticides. Flying insects are attracted to the blacklight, then blown by a fan into a detergent solution.

In picture, the blacklight lamp is above and to the left of worker picking tomatoes in a greenhouse.

For more information, write: Dept. A.A., GTE Sylvania, 730 Third Avenue, New York, New York 10017.

PLASTIC GREENHOUSES

Plastic has been used for greenhouse covering for at least 20 years... possessing a huge advantage in cost as compared to glass.

Professor Ray Sheldrake, Jr., of Cornell University, is a leader in researching ways to use this versatile material. He has always recommended the use of two layers of plastic film with an air space between... finding a 40-percent fuel saving as compared to a single layer of plastic film.

The most recent innovation involves two layers of film separated by a "cushion" of air... rather than the wood spacers formerly used for this purpose. He prefers Monsanto 602 because it's available in widths up to 40 feet. He recommends 6-mil thickness (.006 of an inch) for both layers, but allows as how a 6-mil outer layer and a 4-mil inner layer will work.

Air pressure is maintained by a small blower of the squirrel-cage type, pulling 40 watts of current (approximately 1/20 horsepower).

No battens are used to hold plastic down to building on greenhouses 21 and 26 feet wide.

The plastic has lasted up to three years before replacement. Carl Zehr of Newfane, New York, has four "air sandwich" greenhouses, and is planning to go into the third year without



Give your fertilizer a winter home and Agway will pay the rent

Agway plants simply don't have the storage space for all the fertilizer needed by farmers. So your cooperative will pay you up to \$4.50 a ton (or more depending upon analysis) to store what you need on your own farm. During the first discount period, for example, 15-15-15 analysis, or a total of 45 units at 10¢ per unit, gives you a discount of \$4.50 per ton. And you don't have to pay for the fertilizer until March 6, 1972.

In addition, the fertilizer you store on your farm from November 1 through June 30 will be replaced if loss is due to fire or from water used in fighting fire.

Figure your requirements and place your order now for delivery by December 18 and get the maximum allowance. Agway will gladly help you plan your 1972 crop needs.

AGWAY

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1971-72 storage discount periods	Per unit discount N-P-K ammoniated grades	Per lb. blends spread on the land.
November 1 December 18	10¢	.5¢
December 20 January 29	8¢	.4¢
January 31 February 26	6¢	.3¢



I hope you never need a heart transplant... they may not be able to find a stone small enough!

American Agriculturist, January, 1972



Plant breeder Bill Pardee, author of "What's New in the Field," admires a new variety of alfalfa.

by Bill Pardee

crop varieties for 1972

FOR some folks, the returning robins are the heralds of spring. But long before the first robin heads north, we'll be getting new seed catalogs in the mail, our reminder that spring will come and that it's already time to plan our seed orders to get first crack at new varieties.

So we'll ignore the wind and snow, and discuss those crop varieties that have looked best in experiment station trials, in seed company records and in farmers' fields. We'll try to pinpoint the best varieties as we see them . . . but don't take our suggestions as the last word. Rely also on your county extension agent, your local seed dealers and your own experience.

The Alfalfa Revolution

Alfalfa acreage has expanded rapidly in the Northeast during the past two years. Northeastern farmers planted 50 percent more alfalfa seed in 1971 than two years earlier. At the same time, they shifted from older varieties toward newcomers with capacity for high yield and quality.

Most popular have been two Cornell varieties, **Iroquois** and **Saranac**. Both have been test-toppers in New England, New York, Pennsylvania and the Midwest. Saranac does best on well-drained soils, but Iroquois does as well or better on moderately well-drained soils for long-term stands. Both are long-lived varieties that resist bacterial wilt, a disease that can kill susceptible varieties in second and third years.

Both grow fast and produce high first-year yields in seedings made without oats. Both are excellent for haylage, silage or hay.

It's no problem farther north but in southeastern Pennsylvania and Maryland, Saranac and Iroquois sometimes suffer from anthracnose, a southern disease that causes stem damage. Farmers in these regions may prefer **Team** or other varieties with greater anthracnose tolerance.

Seed supplies of Saranac are adequate for normal demand. Iroquois seed supplies may be limited, so get your order in early for this variety.

Team is a good variety choice in Maryland, Delaware, Virginia and southern Pennsylvania. It has some weevil tolerance and resists anthracnose. However, it is susceptible to bacterial wilt, which limits its use to short term stands. Seed supplies of **Team** will be tight this spring.

Several commercial seed companies have developed new varieties for the Midwest and East. Some have looked good in tests in New York, Pennsylvania, and Maryland. John Baylor, Penn State forage specialist, notes that commercial varieties looking good in Pennsylvania include: **Progress**, **Promor**, **Titan**, **Weevlchek**, **WL-210**, **WL-305**, **WL-306**, **DeKalb 123**, **DeKalb 153**, and **Pioneer 520**, **525**, and **530**. He also reports that **Team** and **Weevlchek** have shown some tolerance to the alfalfa weevil . . . while **Team**, **Titan**, **Weevlchek** and **WL-305** appear to tolerate anthracnose.

Plant breeders at Cornell, Penn

State, Maryland, and Connecticut are gathering additional information on these varieties and others coming from the breeding programs of both seed companies and experiment stations. Some do well in the Northeast, but others are poorly adapted. We'll pass on information about these newcomers as it comes in.

Orbit appears to be the best bet for oats in New York and New England. It continues to outyield older varieties in New York trials. Its shorter straw helps it stand against lodging. **Orbit** matures 3-5 days ahead of **Garry** and other older northeastern varieties, which permits earlier harvest. **Orbit** kernels are somewhat larger than other varieties, so a bushel of **Orbit** contains fewer seeds. Therefore, when sowing **Orbit**, boost your seeding from ½ to 1 bushel per acre.

Russell and **Garry** continue to do well in New York. Both are taller than **Orbit**, and 2-5 percent lower in yield. However, their height helps if you are seeking straw. **Harmon**, a new Canadian variety, appears to yield and stand well and shows promise where we've seen it.

For Pennsylvania, Penn State agronomists recommend **Pennfield**, a medium-maturity variety with good standability . . . and they also recommend **Orbit**. Also looking good in Pennsylvania are **Clintford** and **Jaycee**, both early varieties with good standability. **Russell** and **Garry**, later and taller, still look good in the Keystone State, though they won't stand as well.

You may find this a good year to take another look at birdsfoot trefoil. Seed prices are lower, and supplies of Viking-type varieties are plentiful.

If you do sow trefoil, you may want to consider leaving out the nurse crop and using herbicides to control weeds. This practice has worked wonders with alfalfa, and it shows promise in trefoil. We'll be talking more about this practice in this column in March.

We're enthusiastic about trefoil as a crop to boost forage production on poorly-drained soils where alfalfa does poorly.

The Viking and Mansfield varieties are your best bets for hay . . . or rotation pasture . . . on cropland. **Empire** serves best for permanent pastures or hay on hard-to-plow slopes and soils. Trefoils do best on soils with somewhat poor drainage, where alfalfa does poorly.

For many Northeast soils, we like the mix of Viking trefoil, Iroquois alfalfa and **Climax** timothy. This combination performs well on our fields that slope up, down and sideways and so have spotty drainage patterns. Trefoil persists where

drainage is poor, while alfalfa becomes established in the drier parts of the field. And timothy fills in throughout the field, supplementing both legumes and filling in where they kill out. This mixture fits on countless fields through the hills and valleys of New York and New England.

Climax is the first-choice timothy variety for the Northeast. It matures a week later than **Common** timothy strains, and provides more leeway in harvesting quality hay.

Saratoga bromegrass ranks as first choice in the Northeast, with **Lincoln** generally second choice. **Baylor** and **Southland** are new varieties from the Southwest that show promise in Pennsylvania.

Early-maturing orchardgrass has traditionally been low in quality at first cutting time, though it can provide high-quality grazing later in the summer. Plant breeders have developed two later-maturing varieties to improve first-cutting quality. **Pennlate**, two weeks later than **Common**, ranks highest in palatability. **Pennmead**, a week earlier than **Pennlate**, outyields its later brother, yet holds feeding quality better than **Common**. Both varieties are in short supply this spring.

Our corn variety picture is still muddled by threats from southern and yellow leaf blights. Last summer, southern leaf blight caused extensive damage through New Jersey, southeastern Pennsylvania and Maryland . . . and in limited areas in New

(Continued on page 17)

England and New York. Experiment station recommendations vary somewhat. However, the net conclusion is roughly as follows:

In the southern part of the region, agronomists Joe Newcomer of Maryland, Joe McGahan of Penn State, and Jim Justin of Rutgers are recommending that farmers in those states plant only "normal" cytoplasm hybrids. For these regions, sufficient seed supplies are available for most hybrids.

For New York, the situation is less simple. There was little damage to New York, except in parts of the Hudson and Mohawk Valleys and in

areas just north of the Finger Lakes. In these regions, farmers should grow "normal" hybrids.

In other areas of the state, the leaf blights occasionally appeared, but caused little or no damage. Here farmers may wish to grow "T" hybrids for silage or for limited grain acreage. For regions with 2500 degree-days or less (New York system), it appears that only 3/4 of the seed supplies of adapted hybrids will be available in the "N" or normal form. This means that 1/4 of the acreage in short-season areas will probably be planted with "T" cytoplasm materials.

Since silage is harvested before stalk rot and ear rots become problems, "T" hybrids would be a good gamble in areas where disease has

not previously occurred. Even though there may be some expansion in affected areas next year, farmers in the Southern Tier counties of southern New York, in northern New York, and in areas of western New York where there was no blight damage in 1971, should be able to grow "T" hybrids for silage without loss.

No matter where you farm, look first for hybrids that are adapted to your farm. Choose hybrids that have done well in state trials, in your experience, and that of your neighbors. Don't switch to unknown and untried hybrids just to get a "normal" cytoplasm.

Soybeans aren't a major crop in most of the Northeast, but interest is expanding. Several new varieties look good, particularly Hark and

Traverse for central and western New York. Harosoy, Amsoy, Adelpia, and Wayne do well in southern Pennsylvania, Maryland, Delaware, and New Jersey.

Certified Seed Pays

You've heard it before, but the more I work with seed, the more I am impressed with the value of certified seed. The blue tag assures you of the variety you are getting. It also indicates that the seed meets high-quality standards.

Savings made by purchasing cheap seed from a neighbor . . . or from using your own seed from the bin . . . may look good at planting time, but can cost plenty at harvest. Your best bet is thoroughly tested seed carrying the blue tag of certification!

Food For The Spirit



by Robert L. Clingan

WHAT'S IN YOUR HAND?

In the pages of the Old Testament is the story of God asking Moses, "What is that in your hand?" When Moses said, "A staff," God commanded him to use the staff to perform the wonders of the Lord. Moses had in his hand something God could use.

Too often people despair of doing anything for themselves, their neighbor, or their world, because they believe they have nothing when God says to them, "What is that you have in your hand?" Yet they do have something God could use.

It was the Japanese mystic and Christian saint, Dr. Kagawa, who wrote a poem in which he said he had a secret in his hand . . . God's secret, a secret by which the world could be saved, and men and society could be redeemed.

Among the Greeks was an ancient oracle who would challenge his pupils to tell him whether the object he held within his hands was alive or dead. What he held was a tiny bird. If the pupil said "dead," the oracle would open his hands and let it fly away. If the answer was "alive," he would crush the bird until it was dead.

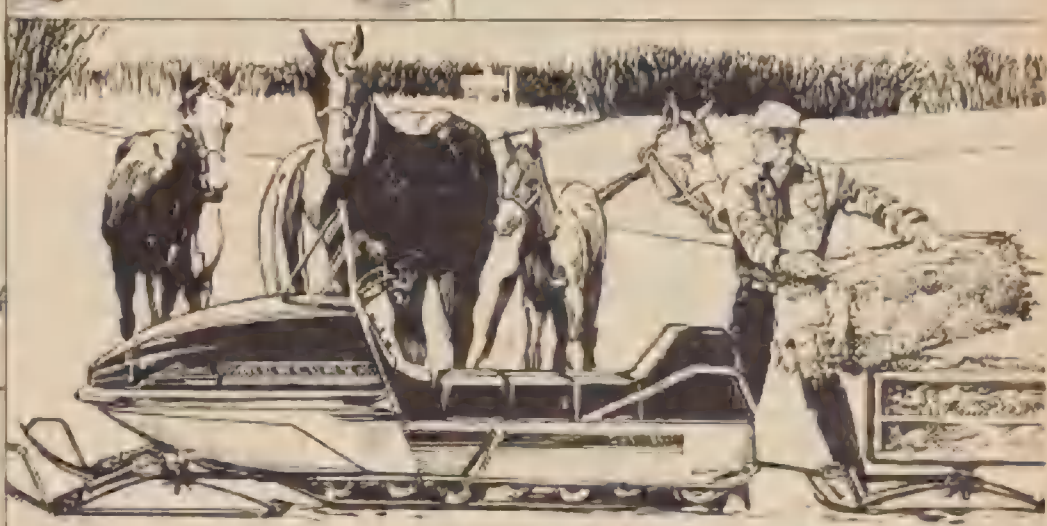
But our God does not play games like that with us. He tells us that what we have can be used for some life-giving purpose. At His bidding, what we have in our hands can become a source of life, to ourselves and other people.

Dr. Washington Carver, the Negro scientist, told his poverty-stricken students at Tuskegee Institute, "Start where you are, use what you have." Carver had taught in a great university where he had the best of laboratory equipment, but he left it to teach in this ill-equipped Negro college in the South.

He sent his students to the city's junkyards to pick up glass bottles, copper tubes, and discarded wire. From junk he made a laboratory, where he did more than anyone else to discover useful products from peanuts.

The hands of his students, who had combed the junk piles, carried hope for themselves and the poor Negro farmer of the South, who could raise peanuts when he could not raise much else.

American Agriculturist, January, 1972



Merc. Wherever there's a job to do.

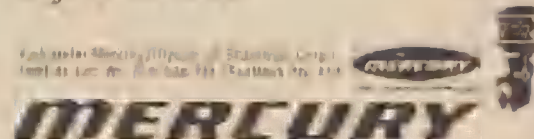
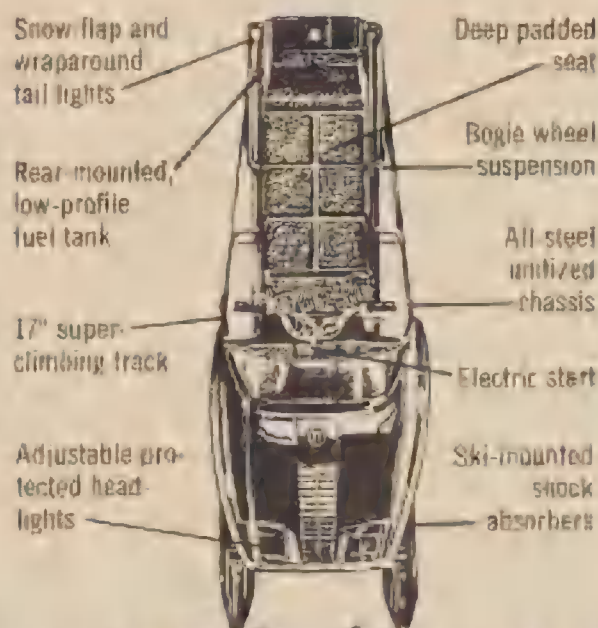
There's an old saying, "When the going gets tough, the tough get going."

In winter, the going gets tough. And that's when the Mercury Hurricane gets going. 35 horsepower of rugged, sled-pulling energy in a 644-c.c. engine takes the Hurricane almost anywhere in winter.

When the weather's at its worst, Hurricane is at its best. Exclusive Thunderbolt ignition for sure starts and smooth running in any cold. Plus a super-climbing track that

glides through heavy snow while the "spoiler" windshield directs snow and wind up and over your head.

When you find the going rough in winter, get tough, get going and get the job done with the help of a Mercury Hurricane. And remember, your Mercury dealer has been factory trained to service what he sells. Merc. Wherever there's a job to do.



Make your mind up on a Mere.

Please check the Yellow Pages for the name of your nearest Mercury dealer.



ECOPERSPECTIVE

by Prof. Robert White-Stevens, Chairman,
Bureau of Conservation and Environmental
Science, Rutgers University, New Jersey

THE term "Pollution" has in recent years become a household word among the American public, and around the world. From newspapers and magazines, radio and TV . . . generally more concerned with circulation and Nielsen ratings than with objectivity and veracity . . . has issued an incessant stream of propaganda to alert the public to the possible hazards of environmental pollution.

It has been deliberately made to appear that this is an entirely new peril to mankind, induced solely by the ravages of modern man, aided and abetted by the chemical industry in general . . . and the agricultural chemical industry in particular. A new vocabulary has been introduced . . . including such terms as "ecocide," "ecosystems," "bionomics," "territorial integrity," "behaviorism," and "biotope" . . . which often defy concrete definition, and convey nothing but a sense of overwhelming confusion to the general public.

The fact remains, although not widely recognized, that life everywhere has always been threatened by pollution. Reduction of one form of pollution in one place generally creates another form of pollution elsewhere. Pollution is a relative matter, the hazard of which depends entirely upon the biochemical activity of the substance involved . . . its rate of decay or conversion . . . the nature of the degradation products . . . the route, degree and frequency of exposure to humans, domestic livestock, wildlife and crop plants . . . and the relative capacity of these living organisms to metabolize such compounds.

Solution to Pollution

Classically, "the solution to pollution is dilution," and this is still the general approach in most areas of the world. This concept is, however, obsolete today . . . particularly in the concentrated populous regions . . . for the abundance and diversity of pollutants is rapidly running out of diluent in many areas.

On the other hand, the public is often erroneously informed that pollution occurs when any undesirable substance, regardless of amount, is present. This completely

ignores the age-old axiom that "the dose makes the poison." Toxicity is a function of the combined impact of concentration, exposure and metabolism; similarly, pollution by any substance must be related to both the quality and quantity of the contaminant.

Were a single gallon of red-dyed water completely dispersed through all the waters of the earth, a gallon of the diluted product would still carry 60,000 red molecules from the original gallon . . . contamination, perhaps, but not pollution! Similarly, a pound of DDT spread evenly over the 48 states in territorial U.S. would deposit about two billion molecules of DDT per square foot . . . again, contamination, but one of medical insignificance.

Analytic Precision

Actually, much of the clamor concerning pollution today in the lay press constitutes more a tribute to the fantastic precision of analytical techniques and modern instrumentation rather than to indicating hazardous contamination. In the case of the pound of DDT spread over the United States, for example, modern technique could detect the presence of DDT collected from 1,000 square feet of such treated land. This needle in the haystack, however, would be in such low concentration as to have no detectable effect on any living organism.

Despite the recent clamor concerning the contamination of food, water and air, the fact indisputably remains that all food and all water and all air is contaminated in varying degree . . . and always has been. Indeed, there is ample evidence from germ-free studies that some modest exposure, particularly in early life, to a variety of bacterial, viral, fungal and worm infections is actually beneficial. Such subclinical contamination stimulates tolerance and resistance to subsequent serious attacks of a disease . . . which in later years might otherwise prove to be fatal.

Those who have encountered "Montezuma's revenge" (bacillary dysentery) while on foreign excursions are all too familiar with the distinct limitations of a "glasshouse"

rearing in an environment of limited exposure!

This is, of course, no plea for abandonment of sanitation . . . nor for ignoring the problems of pollution . . . but we need to regard the problem in focus and in reality. Despite the current furious accusations against modern Western agriculture and food processing, most of us actually live in a healthier environment . . . eat cleaner, nutritious and more abundant foods . . . drink safer water . . . breathe cleaner air . . . dwell in more sanitary houses . . . and enjoy longer, more secure and productive lives than does any other nation on earth, past or present.

Amidst all this affluence, the American farmer has committed the one unforgivable sin in a democracy . . . by dint of his own efficiency, he has reduced himself to a voting minority! His inherent sense of self responsibility, and a rugged individualism, have precluded his joining with his fellow farmers in legal union or group cartel to sustain at least his group independence.

The result has been the steady erosion over the past quarter-century of his political influence. Many northeastern states that were once predominantly agricultural in their economic and political complexion have now become urban states where most of the population lives and works in cities or suburbs where agricultural matters are so remote that they are neither understood nor considered.

Desecration!

Incredible assertions are made daily in the urban press, radio and TV that it is the farmer who is primarily responsible for most pollution. It is claimed, often by those whose training really must assure them to the contrary, that the farmer pollutes the air with pesticides which travel to the ends of the earth . . . that he deteriorates the land with chemical fertilizers and pesticides . . . that he contaminates the flowing waters. And so, it is claimed, he seriously desecrates the environment because he obstinately refuses to obey natural law and farm his land under the rules of the "Balance of Nature."

Were farmers, it is said, but to

return like prodigal sons to the operation of their acres only by natural means, then would our land return to those utopian days of the past . . . and wealth, abundance and a pristine environment would once again descend upon all of us.

This absurdity has now become a national hallucination. Hopefully, like all fads, it will fade eventually into the obscurity it so richly deserves, but it appears currently to have exerted such a grip upon the urban majority that its impact is generating an array of questionable laws, regulations and official pronouncements.

Utopia

Perhaps eventually we will develop really effective biological pest controls which will substantially reduce the need for pesticidal chemicals. Until that utopian day comes, however, we must recognize that every crop and every livestock species raised by our farmers is prey to some two dozen or more parasites or diseases, and that without reliable pesticides to protect his produce, the farmer could not possibly meet our demands upon him for food and fiber.

There are actually more than 10,000 kinds of pests which plague the commercially-produced plants and animals in this country, or threaten our public health and comfort. At least 3,000 are of constant concern . . . those with which our farmers must be continuously prepared to cope. There are not more than 100 pests for which we have biological controls such as resistant strains, management practice and helpful predators. There are at present no more than 30 reliable biological controls against important insect pests of crops, forest trees and livestock.

Furthermore, when registered and approved pesticides are applied correctly in strict accordance with label recommendations, there is no reason why farmers should not use pesticides. When applied properly, they are safe, effective and economically sound. Their contribution to the integrity of man's environment is immense compared to the possible damage they are alleged to cause.

**We at Geigy
realize you do
things differently
in the
Northeast.
In fact,**



what works for your neighbor may not be right for you.

You're both dairymen who grow corn for silage. And you want clean corn. But you may go about it in different ways.

One thing is certain. Unlike the midwest, your main concern is quackgrass. You have it, and your neighbor has it.

It's a tough devil, particularly on land coming out of the soil bank. Part of the reason quackgrass is tough is because it's a perennial grass. It sprouts from roots which are called rhizomes.

Try to cultivate quack out, and it just keeps on coming back. Not only in your corn, but into your alfalfa and the other crops you rotate to.

This is why cultivation, while it has a place, is just not the answer to quackgrass.

What's needed is a herbicide. Today, there are lots of herbicides, and they'll do lots of things. But only one herbicide will enable you to actually eradicate quackgrass.

That's AAtrex®, of course. All you have to do is check the labels of the other herbicides and you'll realize that this is true.

You won't just get control of quackgrass. But eradication. Gone. That's it. For 2-3 years.

The way to eradicate quackgrass is with a split-spray of AAtrex. Broadcast 1 to 3 weeks before plowing this spring. Plow, and spray again at planting.

Sure, this takes an initial investment because two sprays are needed. No way to get around that. But consider the benefits to both your corn and to the crops which follow in your rotation.

In your corn alone, quack eradication can average you four tons more silage per acre. That'll feed a lot of cows. For grain, it figures to 15 or more extra bushels.

Part of this, of course, is because you'll also be getting effective control of most annual grasses and broadleaf weeds. Like the foxtails and other grasses. And lambsquarter, morningglory, velvetleaf, smartweed, pigweed and ragweed.

The year after your split-spray, follow with corn. Go to the rate of AAtrex for annual grasses and weeds.

That's how to eradicate quackgrass. No question about it. Some dairymen learned this the hard way last year.

They experimented with a mixture of AAtrex and a non-quack herbicide. Well, it stunned the quackgrass a little, but it didn't take long for the quack to recover and you should've seen those fields, and talked with those dairymen.

What they were trying to do, of course, was to take care of fall panicum and crabgrass. These fall grasses are becoming a problem. But you can control them with the new tank mix. AAtrex plus Princep®.

Once moisture or a shallow cultivation has moved these herbicides into the weed root zone, you'll control fall panicum, crabgrass and most other annual grasses and broadleaf weeds. All the way to harvest. Plus, each herbicide is labeled for quack.

And the AAtrex-Princep tank mix will cost you \$2-3 less per acre than any other mixture of herbicides. It's safe to corn, and you can spray before planting, at planting or shortly after planting.

Just like straight AAtrex, you can spray AAtrex-Princep along with your nitrogen solution or complete liquid fertilizer. Weed 'n feed corn in one trip over the field.

Your custom applicator can handle it for you. So you can spend your time in the spring doing all the other things you have to do.

Of course, what you do depends on what fits your needs. Maybe you have fall panicum and crabgrass, but your neighbor doesn't. You may use AAtrex wettable powder while your neighbor uses the liquified AAtrex 4L.

Whatever, be sure you have the information you need. Not just some fancy claims for products which might work okay in other places. Because you're in an area with quackgrass. And there's no other area like it.

Geigy Agricultural Chemicals, Division of CIBA-GEIGY Corporation, Ardsley, N.Y. 10502.

AAtrex by Geigy

Who's next?



New "Cash Cushion" Protection covers the risks your family faces every day.

- pays family members up to \$210 weekly when hospitalized
- pays \$15,000 for accidental death of adults
- pays up to \$15,000 for adult's loss of limbs or sight
- pays \$5,000 for accidental death of children
- pays up to \$5,000 for child's loss of limbs or sight

As a farm family you face risks every day that most people never have to face. Risks from machinery, risks from tractor spills, risks when driving cars and trucks on icy back roads, risks from falls, risks from cows, steers and horses. And only you know all the rest. And, of course, any member of your family is subject to major or minor illnesses that could result in hospitalization for days, weeks or months.

That's why Agway General has come up with a new, broader cash supplement plan to give Agway members greater protection against risk at the least possible cost. "Cash Cushion" covers you 24 hours a day on the farm, off the farm, in fact—anywhere in the world.

Since this is a group plan, the cost is low. It is available only to Agway members, their employees,* and their families.

The family rate for a "Full Unit" is just \$66 per quarter, which protects you, your family and your savings when your need for cash may be greatest. A "Budget Unit," providing half the protection described, at half the cost, is available for those whose needs or desires may not be as great.

*Subject to Federal Wage Price Freeze regulations in effect.

Tax-free checks come to you

When hospitalized, your weekly check of \$210 is sent directly to you, not the hospital, at the rate of \$30 per day. You may receive this amount for up to 26 weeks for each unrelated hospitalization. No matter what other basic hospital coverage you may have, be it Agway Members Insurance or Blue Cross/Blue Shield or any other plan, you may use the money as you wish—to pay hired help, pay bills, or to add to your bank account.

Standard Exclusions

Hospitalization resulting from pregnancy, acts of war, Workmen's Compensation claims, hospitalization in government hospitals, and hospitalization as a result of a felony are not covered by Agway "Cash Cushion" Protection. Agway "Cash Cushion" is available to individuals under age 65. A new program for members 65 and over is now being developed and will be announced soon.

Complete descriptions of all benefits and coverage are contained within the final certificate and master policy.

No medical examination if your enrollment is postmarked by midnight February 15

"Cash Cushion" coverage begins April 1. And if you enroll now, no medical examination is required. After February 15, a physical exam or health statement will be required. So don't be frozen out of this new, broader coverage. Take advantage of the open door enrollment period.

Available to single members and couples, too

"Cash Cushion" is designed for growing, active families. But it is ideal for couples and single persons, too. The following attractive rates will help you to decide how "Cash Cushion" best fits your family situation.

	Quarterly Cost	Full Unit	Budget Unit
Single		\$21.00	\$10.50
Couple		39.00	19.50
Family:			
Parents & dependents under 19		66.00	33.00
Parent & child, or children		48.00	24.00

Don't miss out on this protection

This is your last chance to enroll in Agway General's "Cash Cushion" Plan without a physical exam or a health statement. So don't risk being refused because of a physical problem. To safeguard your savings and your farm, fill out the coupon and return it today.

AGWAY GENERAL
Partner in your peace of mind



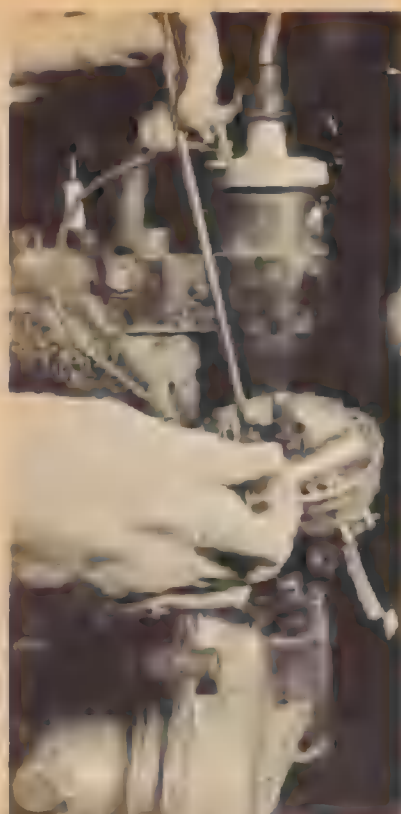
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Address _____

City _____ County _____ State _____ Zip _____

Mail to: Agway General, Box 1410, Syracuse, N.Y. 13201
Att: Members Insurance—Customer Service



The distributor is the heart of the ignition system . . . precise adjustment is a must.

engine tune-up

by Wes Thomas

YOU can check the condition of your tractor, truck, or automobile engine quickly and easily with instruments and gages now available. For about \$75, you can obtain the instruments discussed here that enable you to pinpoint the more common engine troubles.

Of course, you cannot expect these relatively inexpensive instruments to completely eliminate the need for periodic tune-up by your dealer's service department. Additional (and more elaborate) equipment is required for such professional tune-ups.

You will be able to tell, however, whether engine overhaul repair is needed to correct the difficulties that you discover, or whether the engine can be returned to proper operation by a few simple adjustments. Generally, the instruments can be used as a guide to obtain the best adjustment settings.

Compression

Compression pressures developed by the engine are a measure of the condition of the piston rings and valves . . . important in obtaining good engine output. The compression-tester is essentially a pressure gage with a check valve in the stem. Thus, the pressure reading remains on the gage until the valve is released by hand.

Exact pressure values that the engine should develop vary among different makes of engines, so check your operator's manual for the correct reading for your particular situation. For piston rings in good condition, the gage should show approximately 70 psi (pounds per square inch) on the first revolution, and then increase to the specified value after a few more revolutions.

The readings for all the cylinders should be within 10 psi above or below the value specified in the manual. Readings considerably below this on two adjoining cylinders indicate that the head gasket between them is probably leaking.

Too High

If all the readings are considerably above normal, carbon deposits have accumulated and reduced the clearance volume in the combustion chamber. The resulting increase in effective compression ratio can lead to "ping" (detonation), and other poor engine performance. To correct this condition requires removing the cylinder head and cleaning the

carbon deposits from the combustion chamber.

If, on the other hand, all the readings are **below** the normal value, try squirting one or two ounces of engine oil through each spark plug opening. Then repeat the compression test on all the cylinders. If the readings are now more nearly normal, the piston rings are leaking. However, if there is little or no increase in pressure, the valves are leaking.

Further tune-up efforts are pointless if the compression pressure is much below normal. The need for satisfactory compression is basic to engine performance, and no amount of tune-up or adjustment can offset this requirement.

Manifold

Intake manifold readings serve as a tip-off to poor engine performance even though compression pressure may have been satisfactory. Most engines have some sort of plug opening in the intake manifold for attaching the vacuum gage.

The vacuum reading should be approximately 18 inches at slow idle speed.

A reading that is low, but does not fluctuate, indicates a loss of power in all cylinders. Such loss can be caused by late ignition timing, or a carburetor gasket or cylinder gasket that is leaking.

A gradual drop in the vacuum-gage reading at idle speed indicates excessive back pressure on the exhaust system.

Fluctuation . . . or slow drifting of the needle . . . can be a tip-off to one or more of the following conditions: **Steady** fluctuation when engine speed increases indicates that one or more cylinders are not delivering full power. Possible causes include a leaky valve, a leaky cylinder-head gasket, a defect in the ignition, or a weak valve spring. **Occasional** fluctuation of the needle indicates an ignition defect or a sticky valve. **Slow** fluctuation or drift of the needle indicates an incorrect idle-mixture adjustment on the carburetor, or a leak in the carburetor gasket.

Ignition timing . . . a measure of the exact instant at which the fuel-igniting spark occurs in relation to piston travel . . . is checked by illuminating a reference mark on the flywheel each time the number one cylinder fires. The timing light produces short bursts of intense light that make the mark appear station-

ary even though it is in reality moving with the flywheel.

Timing is normally specified in degrees of rotation before top dead center. Automatic controls in the distributor advance the spark timing as engine speed increases. This ensures that the spark occurs early enough to allow time for complete burning of the fuel charge, even at high engine speed.

Thus the operator's manual usually lists a timing setting for slow idle speed and a second setting for high idle speed. The usual procedure is to adjust for correct timing at slow-idle speed, then advance engine speed to the specified high-idle value. If the high-speed timing is not then correct, this indicates a defect in the distributor advance mechanism.

Late timing reduces engine power output, and may cause the exhaust valves to burn because combustion is not complete by the time the exhaust valve opens.

Early Timing

Early timing, on the other hand, can cause difficult starting and "ping." If the fuel-air mixture in the cylinder is exploded too early in the cycle, the force developed produces a sledge-hammer-like blow against the top of the piston. If severe enough, these blows can completely destroy the engine.

An electronic instrument that needs to be connected only to measure the pulses of low voltage current delivered by the distributor to the ignition coil can be arranged to give readings of generator output voltage, engine speed, and ignition point settings.

When the battery is in a normal state of charge and the regulator at normal temperature, the charging voltage shown on the meter is equal to the voltage setting. In a 12-volt system, normal range is 14 to 15½ volts. In a 6-volt system, range is 7 to 7½ volts. If the output voltage

is too high, the battery can be damaged by overcharging, life of light bulbs is reduced, breaker points burn, and other electrical units can also burn out. Too low a voltage leads to a run-down battery.

Adjust

To correct the charging rate, the voltage and current regulator must be adjusted. This is a job which should be done by your dealer's service department.

When used as a tachometer, the electrical gage provides a check of the mechanical tachometer included on most present-day tractors. In addition, it provides a conveniently-available indication of engine speed during tune-up adjustments. For truck and automobile tune-up, it provides the required indication of engine speed.

Adjustment of the ignition breaker points can be measured either in terms of degrees of cam dwell or point-gap spacing. Dwell is a measure of how long the points are closed, while gap is a measure of how far the points separate each time they open. Some operator's manuals provide both figures, while others may give only the recommended gap setting. In this case, check with your dealer who will have the information on proper point-dwell settings.

Although the exact numerical relationship between point gap and dwell angle varies with the design of the distributor, when the gap increases, the dwell decreases. If the engine must be stopped and the distributor opened to adjust the breaker-point gap, more than one attempt may be required to arrive at exactly the right dwell setting. Some engines are arranged so that the point gap can be adjusted while the engine is running. In this case, it's only necessary to watch the dwell meter and adjust the points to the required setting.

Doc Mettler Comments on:



BOVINE MAMMILITIS

HAVE you ever stepped into the barn in the morning and, even before you snapped on the lights, known something was wrong? It might only have been that the 4-H steer was loose and wandering around . . . or it could be that a cow had calved three weeks early with twins. For some reason, what seems to be cowman's intuition lets you know when to be alert and look for trouble.

Veterinarians will tell you that at times, when they are examining a cow or horse in what seems to be a routine case, a notion will strike them that this one is different and they'd better look further. Sometimes they find nothing out of the ordinary, but often they discover their "intuition" has brought them to an unusual diagnosis, such as a twin calf when the first one was too big

for them to expect another, or some exotic foreign disease when they were only expecting cowpox.

I am not superstitious, and I don't think intuition plays as much a part in these cases as skill and experience. In these complicated days, the cowman or veterinarian who does not make fullest use of these qualities is apt to be in trouble all the time.

We in New York State who make our livelihood by working with livestock are fortunate to have helping us an extension veterinarian who, through his skill and experience, picks up warning signs of livestock health hazards from various sources and relays them to us through newsletters, extension releases and direct contact.

He is Dr. Bruce Haynes, and one

(Continued on next page)

his recent news releases is typical. It involves a disease that most of us, dairymen or veterinarians, would mistake for cowpox.

Almost everyone who has milked cows any length of time has seen the condition known as cowpox or pseudo-cowpox. This highly-contagious disease starts out as small blisters on the cow's teats or udder; eventually the blisters break, leaving sores that are difficult to heal. Anything going from cow to cow can carry the virus... a man's hand, the milker liner, a wash sponge, or any other item.

Similar

The release announced that bovine mammillitis, a disease similar to cowpox...but much more severe...has been diagnosed in New York State. This disease, which has been known in England for several years, was reported in Minnesota prior to the New York outbreak.

Onset of bovine mammillitis is rather sudden with reddening and swelling of the affected area. It may be a lesion the size of a dime, or it may involve the entire teat. Affected teats may feel stiff, and appear deformed. Some are sore, some not. Up to 90 percent of the animals in a herd may become affected.

Soon the skin peels off the sores, and in some cases the whole teat may become raw. You can readily imagine the amount of mastitis that will result from this sort of condition.

Lesions

Bovine mammillitis virus enters the body of the cow via tiny skin lesions. The abrasions caused by a normal milking machine are enough to open a site of infection if the virus is present. The disease can affect other skin areas, but usually only the teats and immediate udder area.

The source of infection is said to be replacement cows, which themselves do not have to have visible lesions. The incubation period is four to eight days, so that a whole herd could be exposed before the first lesions were seen.

What does this mean to you, a person who makes his or her living from the dairy cow? It should mean that if you add new cows to your herd, you would examine their teats and udders more closely than usual. It should mean that you

would milk them last for a couple of weeks, if at all possible.

Control

It should also mean that at the first sign of any cowpox-like lesions, you would try control measures. These include milking infected cows last, and extra sanitations such as single service towels, sanitizer in the wash water, and rinsing units between cows. Wash hands, clothing and anything else you can... from stall partitions to milk stools if you use them.

The next logical step would be to call your veterinarian at the first indication that udder sores are spreading. I have seen slides of what bovine mammillitis lesions look like, and I am afraid if I had it in my

own herd I would be tempted to beef half the herd. The skin the whole length of the teat peels off as though it was burned. How can you milk a cow like that?

Mammillitis is a reportable disease, and your veterinarian is required by law to report it to state and federal authorities. This is good, since if the diagnosis turned out to be correct, you would receive help from people who could try to keep it from spreading and would recommend further control measures.

Replacements

You might wonder why I don't say, "Don't ever buy replacements, raise them." This is certainly a good idea, but in some setups, the farm business is geared to buying replace-

ments. Furthermore, many people make their living raising replacements to sell. More practical than not buying replacements is being careful of their source.

I would worry more about the common use of milking equipment at sales, fairs and shows than about replacements. This goes for control of everything from cowpox to Strep. Ag. mastitis. Furthermore, if you have a neighbor or friend help with the milking, common sense rules that clothing and hands be really clean between herds.

I hope you or I never see bovine mammillitis closer than a projector screen. At least if we do we will have been warned by our good friend, Dr. Haynes. We can rely on him better than on intuition.



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FORESTRY

Dutch Elm — By the use of aerial infrared photography to detect Dutch elm disease in its earliest stages, geographers in Denver, Colorado hope to save a big share of the city's 400,000 elms, and perhaps provide a key weapon for other cities searching for a way to combat the disease.

If a "sick" tree is detected in time, removal within 3-10 days will prevent the disease from spreading to surrounding trees. Infrared pictures identify diseased trees far sooner than does ground-level testing...

because such trees decrease in what's called "infrared reflectance."

Denver's program is based on the use of the same infrared film used in military reconnaissance flights and camouflage detection.

Down Din — Useful information for landscape architects, horticulturists and nurserymen is contained in the technical account of a three-year noise study conducted at the University of Nebraska and funded by the U.S. Forest Service.

Entitled "Trees and Shrubs for Noise Abatement," the 77-page publication tells how to determine size and proper placement of tree and shrub belts to effectively screen out noise of highway traffic, shopping

centers, and heavy industry.

A limited number of copies of the report are available at 50 cents each from: Department of Information, East Campus, University of Nebraska, Lincoln, Nebraska 68503.

Trees — The two most popular Christmas tree species are Scotch pine and Douglas fir, according to the National Christmas Tree Growers Association. Additional data compiled by this group:

*35 million natural Christmas trees are sold annually in the U.S.

*At the wholesale level, the annual value is \$70 million; at the retail level it's \$210 million.

*85 million seedlings are planted by Christmas tree growers annually.

MINERAL IMBALANCE

Professor R. R. Kelley, extension dairyman of West Virginia University, reports an unusual field experience with a pollution-caused mineral imbalance in a dairy herd.

Limestone dust from an industrial plant contaminated the pasture, hay crop and water supply of a dairy operation originally having approximately a 13,000-pound rolling herd average (RHA). The farmer reported swollen leg joints, failure to display heat, failure to settle, increased calf mortality and sickness, and a gradual decline in average production over a two-year period to approximately 6,000 pounds. Following feeding of monosodium phosphate free-choice (approximately 700 pounds consumed in the first month by 63 cows) the milk production was, after a brief additional decline, restored to about 14,000 pounds (projected RHA). All other signs have improved, and calf crop mortality was zero of 18 this summer.

Surprisingly, consumption of the phosphate has been slight following the initial "binge" . . . even though the pollution has not been stopped.

PREVENT DEHYDRATION

Penn State dairy specialists recommend what they call an "electrolyte solution" for calves having scours. Here's the formula:

Dextrose or Cernulose	
(White corn syrup)	8 tbs.
Salt	2 tps.
Baking Soda or Sodium Bicarbonate	1 tsp.
Water	To 1 gal.

Feed at the rate of 1 pint (approx. 1 pound) per 10 pounds of body-weight daily to prevent or alleviate dehydration in support of usual treatment. Use this electrolyte solution as a replacement for the usual milk or liquid milk replacer fed to the calf for a period of 1-1½ days. Preferably feed the electrolyte solution 3-4 times daily.

For example, a 90-pound calf might receive a quart of electrolyte solution four times daily. Make up the electrolyte solution fresh each day. If oral antibiotic medication is used, place it in the allowance of electrolyte solution at an amount in accordance with directions on the label.

ROUND PARLOR

A milking parlor "in the round" isn't brand new, but one in Nebraska has stirred a lot of comment. It's on the farm of Leonard Jacobs in Valley County, about 13 miles from Arcadia . . . and 160 miles due west of Omaha.

Cows enter the parlor by stepping on a revolving circular platform, which makes one revolution every four minutes. The platform, complete with synthetic football turf as flooring, accommodates 12 cows at a time. The Jacobs report they average milking 115 to 125 cows per hour on the rig. There are about 300 cows in the milking herd.

...

The average dairy cow eats about 11 pounds of hay per day.

...

American Agriculturist, January, 1972



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Corn Growers: Your lowest cost for sure control of nutgrass and fall panicum is Sutan[®]+atrazine Selective Herbicide at \$7.80 per acre

For real sure control of nutgrass and fall panicum, the toughest weeds in most cornfields, rely on Sutan plus atrazine to be the best at lowest cost.

Use ½ gallon of Sutan 6-E plus 1¼ pounds of atrazine 80-W on light to medium soils for \$7.80 per acre. On heavy or cold soils of New York and New England, use ¾ gallon of Sutan plus the same amount of atrazine for \$9.50 per acre.

Compare this with the cost of high dosage rates for any other herbicide or combination that attempts control of nutgrass and fall panicum. You'll come out best with Sutan plus atrazine.

Many herbicides control some weeds some of the time. That's why tough nutgrass and late-germinating fall panicum flourish where other weeds disappear. You get them all for sure with Sutan plus atrazine.

Mix Sutan plus atrazine in the soil as you work your ground before planting. Sutan gets the grasses, atrazine gets

the broadleaves, destroying weeds as they sprout, with no gambling on rain to get results. Surface-applied herbicides often fail without rain.

With Sutan plus atrazine your weed control lasts longer. You knock out early-germinating weeds and also get late-sprouting fall panicum and crabgrass. Yet biodegradable Sutan leaves no soil residue to affect your next crop and the low rate of atrazine reduces hazard to rotation crops.

Yes, get sure weed control: stop the easy ones and stop the tough ones. Don't take chances. Use Sutan plus atrazine, competitive in cost, effective rain or shine season-long to give you clean corn with bigger yields. See your authorized Stauffer supplier now. Stauffer Chemical Company, Agricultural Chemical Division, Westport, CT 06880.

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But the differences make your money go further, too. The 86 hp 1755 uses the engine in its simplest form. Heavy duty power stretches your dollar through long engine life.



86hp



98hp

The 98 hp 1855 offers turbocharged performance with 5.84 hp hours per gallon. That's outstanding economy. Keystone piston rings add durability.

The 108 hp 1955 gives you the turbocharged power boost usually found only in tractors above 120 hp. With the 1955, you get well above 100 hp yet save the cost of a bigger engine. Oil cooler and steel inserts for the keystone rings provide long life at the higher output.

So pick Oliver—with 86, 98 or 108 hp. You'll get more for your money because these tractors are similar... yet with important money-saving differences.

See your Oliver dealer.



108hp



LOOKING AHEAD

by Amos Kirby
New Jersey Editor

THE most important question confronting growers in the Garden State, "What crops to grow in 1972?"

The year 1971 was not a highly profitable year for New Jersey fruit, vegetable and potato growers. Prices have been low, and unusually heavy rains from August until December greatly reduced yields. Dairymen, as a group, are faring better than any other.

There are a few basic principles on which growers can base their future operations. Here are a few which appear safe to follow:

1. Grow those crops which are adapted to your soils, and with which you know how to get satisfactory results.

2. Consider most those crops that require a minimum of labor; the trend is toward mechanization.

3. In the South Jersey area, apple and peach growers are removing varieties which have a limited demand. Vegetable growers should consider shifting to highly-mechanized harvesting unless they can secure advantageous contracts in advance of planting.

4. While agricultural commodities at the farm are not subject to Phase II of the price-wage control laws, processors are subject to regulation. This means that prices offered farmers under contracts may show little change.

5. Farmers in the Northeast are no different from those in other parts of the United States. A recent trip to mid-America reveals that growers there have similar problems to those in Maine or New Jersey.

6. Prices fall on a three-percent increase in supply, rise on a three-percent decline in supply. Study the market reports for the past 25 years and you'll find that this has been a good guide to what growers receive.

7. Can growers with high-priced land and high taxes afford to let that land lay idle in 1972, even three-percent of it?

8. Business moves in cycles, and so does farming. A bank I know has paid a dividend for 137 years. It has had seasons when profits have been zero, but it is stronger today than any year.

ALAMPI HONORED

New Jersey Secretary of Agriculture Phillip Alampi has been designated as "the man of the year" by the national egg industry.

The honor was conferred by Egg Industry, U.S.A. at a dinner held in New York, attended by more than 300 people affiliated with the egg industry.

NEW RULING

The New Jersey Department of Labor and Industry has relaxed the ruling on toilets on farms for seasonal workers.

Originally, the Department had ruled that there must be an approved toilet within 500 feet of every worker employed on each farm. Instead of measuring distance in terms of feet, they must now be within a five-minute walk from the field.

The change was made following unanimous protests from growers. Many farm groups joined in the opposition, under the direction of Farm Bureau and the State Grange.

While the location of these field toilets has been decided, growers are still awaiting word on building standards that will meet the requirements of the Department.

ANOTHER MERGER

It worked in New England. Now another merger has been formed. Following the pattern of the New England horticultural societies which hold one joint meeting, instead of many single meetings, the Mid-Atlantic group is planning a similar project.

The New Jersey, Virginia and Maryland horticultural societies are holding a joint 1972 meeting... at Roanoke, Virginia on January 16-19.

Objective is to gain a regional approach on fruit problems, and to make possible an agribusiness exhibit with more participants.

CORN BLIGHT

New Jersey survived the corn blight better than expected. However, a combination of the blight, excessive rains and some late-planted corn resulted in a drop of 10 bushels per acre in the state average yield.

Growers are sorting over the various varieties planted in 1971 to determine which were able to come through with good yields, despite the combination of adversities.

PROMISING NEW CROP

Down in Gloucester County, a grower is experimenting with a new crop. It is a woody plant to supplement wood in the manufacturing of paper.

This new crop is Kenaf. It is an annual. It grows as much as 12 feet high, and is planted and cultivated in much the same manner as corn.

Kenaf is being grown on the farm of Owen Pool of Mickleton, New Jersey, in cooperation with a big company that requires wood in making a type of paper for roofing products.

COLOR SEXING

Sexing chicks is old stuff with many hatcherymen and producers, but now comes a new system based on tests at the College of Agriculture in Delaware.

The new system is based on color in the newly-hatched chick. The cockerels are perfectly white, while the females have a red tinge on the head and back.



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Retirement.

Most people look toward retirement as a time of relaxation and enjoyment. And it can be if you prepare for it. But if you don't, it can be a time of worry and discontentment. A time when you can look back and think of a million ways that you could have saved, but didn't.

Well, there's no better time to think about retirement than now, while you're working.

One easy way to save on a regular basis is by purchasing U.S. Savings Bonds through the Payroll Savings Plan where you work.

Now there's a bonus interest rate on all U.S. Savings Bonds—for E Bonds, 5½% when held to maturity of 5 years, 10 months (4% the first year). That extra ½%, payable as a bonus at maturity, applies to all Bonds issued since June 1, 1970... with a comparable improvement for all older Bonds.

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Remember, even if you don't need the money now, it's a good idea to have it. The more you save, the more you'll have when you need it. Buy U.S. Savings Bonds today.

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DAIRY FARM PROFILE

DAIRY farming has gone through massive changes in the last decade... witness the figures presented below. They come from a publication entitled, "Dairy Farm Management" (A. E. Res. 331) available from Professor C. A. Bratton, Department of Agricultural Economics, Cornell University, Ithaca, New York 14850.

The 467 dairy farms summarized

in 1960 were not all the same farms as the 509 in 1970... nor are the farms in either group necessarily typical of New York dairy farms in general. However, the trends indicated here are typical of changes in dairy farming generally... and the specific numbers provide some thumb-rule guidelines as to the business profile of some of the more successful dairy farms in the State.

SELECTED FARM BUSINESS SUMMARY FACTORS New York Dairy Farms, 1960-1970

Item	1960	1970
Number of farms	467	509
Financial Summary		
Average capital invested	\$47,426	\$132,545
Total farm receipts	\$20,075	\$66,467
Total farm expenses	\$14,768	\$47,795
Labor income per operator	\$3,317	\$10,200
Size of Business		
Number of cows	35	65
Pounds of milk sold	333,900	822,200
Crop acres	96	168
Man equivalent	1.7	2.2
Rates of Production		
Milk sold per cow	9,540	12,600
Tons hay per acre	2.3	2.7
Tons corn silage per acre	10	15
Labor Efficiency		
Cows per man	21	30
Pounds milk sold per man	196,400	373,700
Cost Control Factors		
Machinery cost per cow	\$107	\$175
Machinery cost/cwt. milk	\$1.12	\$1.38
Feed bought per cow	\$124	\$192
Feed bought/cwt. milk	\$1.30	\$1.52
Feed & crop expense/cwt. milk	\$1.63	\$1.91
%Feed is of milk receipts	28%	25%
Capital Efficiency		
Total investment per man	\$28,674	\$62,385
Total investment per cow	\$1,392	\$2,112
Machinery investment/cow	\$287	\$447
Total investment/cwt. milk	\$15	\$17
Other		
Price per cwt. milk sold	\$4.64	\$6.10
Acres hay & hay crop silage	78	119
Acres corn silage	15	49
Total acres in crops/cow	2.7	2.6
Lime & fertilizer expense per crop acre	\$7	\$13
Farm income per cow	\$170	\$287
Labor income per cow	\$102	\$145

WIDE-AWAKE LAGOONS

Dairymen have shown growing interest in lagoons for disposing of wastes from milking areas in the barn, particularly from the milking parlor.

Marshall Haws, executive assistant of the Chester County (Pennsylvania) Soil and Water Conservation District, reports that lagoons are being used in Delaware and Maryland for recycling human waste. More specifically, these installations are at Rising

Sun, Port Deposit, and Elkton in Maryland... and at Laurel and Harrington in Delaware.

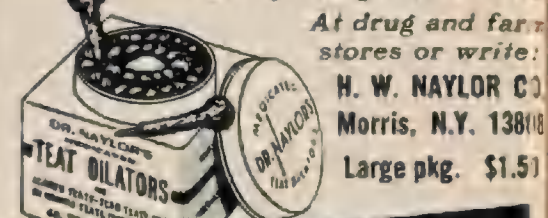
Mr. Haws comments, "Perhaps you should alert the less well-heeled communities to the advantages of spending their tax dollars on lagoons rather than becoming committed to the masonry monument." His address is 401 Court House, West Chester, Pennsylvania 19380.



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W. J. P., Indianapolis, "I have used TARLEINE and found that it is everything you claim it to be. It has cured my piles and I am so thankful to you for putting out such a remedy."

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NATIONAL



4-H WINNERS

Young 4-H members representing nine northeastern states participated in the recent 4-H Club Congress in Chicago. Pictured here are the national award winners selected from those attending including J. Arthur Tufts, who was one of eight national alumni winners to receive gold key awards.

JERSEY



James Culbert
Woodbury, NJ



David Kriyoshik
Elizabeth, NJ

NEW HAMPSHIRE



J. Arthur Tufts
Exeter, NH



Marion Crow
Stratham, NH

NEW YORK



Mary Vernik
Sharon Springs, NY



Karen Carr
Elmont, NY



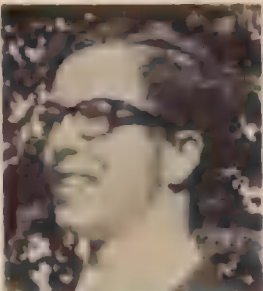
Ruth Thompson
Ogdensburg, NY



Jean Powers
Miford, NY



Joseph Vamosey
Stanford, NY



Timothy Osborne
Spencerport, NY



Stephen Lawton
North Collins, NY



Barbara Snider
Fillmore, NY

PENNSYLVANIA



David Norman
Liberty, PA



Jay Irvin
Beaver, PA



Pamela Pecora
Drums, PA



Kathleen Wable
Port Hill, PA



Linda Pelton
Birdsboro, PA



Lucille Reed
Enola, PA



Janis Wagner
Tionesta, PA

RHODE ISLAND



John Silvia
Middletown, RI



John Mazzo
Proter, RI



Bethany Barlow
Middletown, RI

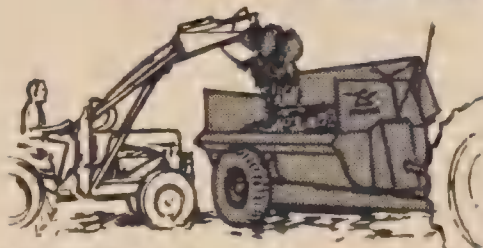


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Dollar Guide



U.S. CENSUS BUREAU will be conducting special "type of farm" mail surveys shortly after January 1, 1972. Forms will go to selected group of farmers, not the all-inclusive approach taken by general Census of Agriculture done in early 1970.

MIDDLE ATLANTIC MILK ORDER may be amended to establish an advertising and promotion program for milk products. USDA has recommended the amendment ... a "first" of its kind ... after a public hearing.

The program, if adopted, will be funded by an assessment of 5 cents per cwt on all producer milk. Quarterly refunds will be made, however, to any producer not wishing to participate.

MAPLEWOOD POULTRY COMPANY of Belfast, Maine, is target of first civil suit filed under Agricultural Fair Practices Act ... for alleged discrimination against members of the Maine Agricultural Marketing Association.

The government suit accuses the company of threats of economic coercion against four broiler growers.

CLASS I MILK use in northeastern federal order markets is slipping as a percentage of total milk deliveries. Comparing figures for August 1971 with the same month in 1970 reveals Class I fluid utilization:

Down 1 percent (N.Y.-N.J.), down 2 percent (Boston Regional), down 2 percent (Middle Atlantic), down 4 percent (Connecticut).

METHIONINE HYDROXY ANALOG is 64-dollar term for feed additive stirring up a lot of interest among dairymen. Sold under trade names "MHA" (Monsanto) and "Hydan" (DuPont), it's a synthetic amino acid that can stimulate milk production.

Response is greatest in high-producing herds, and from cows at peak lactation. Some dairymen report the additive sharply reduces the incidence of ketosis. Penn State researchers advise that interested dairymen begin feeding it just before calving, and stop when the cow's milk production drops below 50 pounds per day.

If you're searching for ways to make a good herd better, here's fertile ground to plow ... although research does not show consistently positive results among all cows.

UNITED EGG PRODUCERS reports that average farm prices have been below production costs for more than 18 months. UEP is pushing federal legislation to require slaughter of a specified proportion of all producers' laying flocks if egg prices have been below production costs for an extended period of time.

NEW MOVIE, entitled "The Rock and the Hard Place," describes economic realities facing American farmers. It was filmed on 22 actual farms, records the attitudes farm families have toward the land, their work, and modern farming.

Available through any local Federal Land Bank or Production Credit Association.

MORE GRAIN can be purchased with 100 pounds of milk in Vermont than at any time in the past 25 years, reports ag economist Fred Webster. He predicts an "ample milk supply" will be produced in the Green Mountain State in 1972!

TRAPPING with steel leg traps would be forbidden by bill being considered by Congress (HR 8784). It also prohibits sale of furs taken with this type of trap.

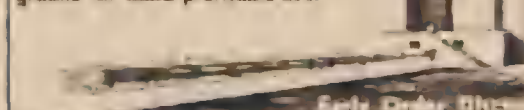
USDA CORN PURCHASES in open market are designed to raise price of that overproduced feed grain. Corn so purchased will go into a "reserve stock."

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American Agriculturist, January, 1972

extension changes

I appreciate the opportunity to comment on your editorial entitled, "Extension Changes," which appeared in the December issue.

It is recognized that there is high risk in shifting the balance and seeking to extend our educational resources to more people. But there is no choice. Knowledge is for sharing and we cannot draw a line between rural and urban people as a guide to sharing knowledge provided by public funds invested in research. Programs in rural or urban horticulture, rural or urban nutrition, draw on the same knowledge, although the "delivery systems" differ. We are seeking to get the greatest possible mileage out of the knowledge resources available to us . . . knowledge needed by so many of the state's people . . . rural and urban.

It would be appropriate to comment briefly on "three of this year's events" which were cited in your editorial.

Oneida County, Wisconsin. As you point out, the extension office in that county was closed. Much has been made of this case, but the conclusions drawn from it differ. I am advised by the Director of Cooperative Extension, Gale Vandenberg, that the office was not operational for three months, July, August, and September, 1971. Citizen petitions were presented which resulted in restoring the program. A referendum is scheduled for April, 1972 to determine the future of the program and indications are that a strong vote of confidence will be registered. Maybe it isn't had to discontinue a program occasionally just to see if anyone cares enough to call for its restoration!

The surprising thing to me is not that the Oneida program was discontinued, but that such occurrences are so rare. These are stressful times in terms of availability of funds and opinions on who is to be served by the funds. Considering the strong dependence on local funds, the nature of the political process, present day stresses and the number of offices across the country, some casualties would seem likely due to lack of support as the fiscal crunch grows more severe. We anticipate hard times ahead, and are giving serious study to the kind of programs deserving of public support . . . not only in good times, but when the going is tough. The 9.6 percent increase in local support to extension associations in New York last year is a vote of confidence which we do not take lightly. We are concerned that we continue to justify this confidence. We can't rest on our laurels.

"Perspectives for the '70's." We attempted in this report to indicate the scope of extension programs, that is, what programs fall within the "ball park." It is not expected that every extension association cover

the full spectrum of programs listed, rather that its program be tailored to local need as determined by the board of directors.

Under the three priority thrusts (Quality of Community and Family Life, Quality of Environment and Disadvantaged Sectors of Society) were listed the following program areas:

Community Development
Comprehensive Manpower
Consumer Well-Being
Environmental Quality
Food and Agriculture Industry
Housing
Human Development and Quality of Living
Human Nutrition and Health
Minority Opportunity
Population - Growth, Dispersion, Control

It is not assumed that these have equal rank in terms of campus or field staff support. Indeed, one such as Food and Agriculture Industry is well established with a major commitment of personnel, while Housing is new with little personnel. Agriculture has some "stock" in other program areas, such as Community Development and Environmental Quality. One could raise the question, "What happened to Home Economics?" It's there but with new labels. It is not expected that the resources in support of programs become fixed, rather that they change over time as priorities dictate.

A meaningful measure of relative support of the various program areas is provided by the effort report which indicates the actual commitment of staff time to "line items" which comprise each of the program areas. "Counting of pages" as an indication of support is likely to be misleading.

Charge for publications. Inflation moves across a broad front. Publication costs have risen by 30-35 percent over the past five years. When budget cuts were imposed, adjustments had to be made. It was the opinion of the administration that some of this adjustment should be made by greater sharing of publication costs. While I regret the seemingly arbitrary manner in which the decision was reached, I think the decision was basically sound. It is compatible with the first point cited above from your editorial.

As your editorial so well states, these are troubled times. If extension is to be "relevant," it will at times find itself in the midst of trouble. The options I see are two, status quo, leading to sure failure . . . or planned change which, with hard work and a "little bit of luck," offers some chance of success. We are opting for the latter with faith in the extension partnership between local leaders and a great university.—*Edward H. Smith, Director of Cooperative Extension, Cornell University, Ithaca, New York.*



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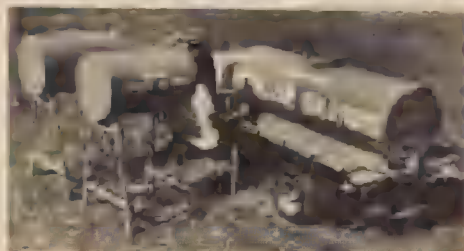
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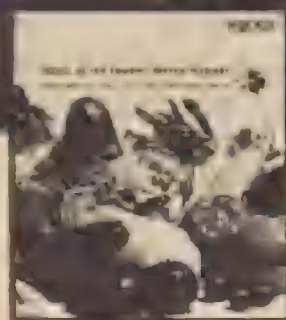
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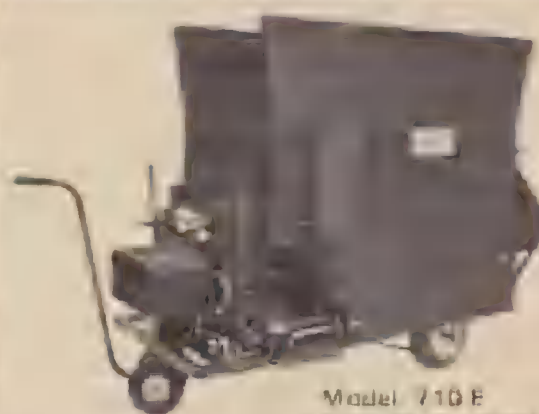
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International Harvester's new heavy-duty engine oils ... one for gasoline and LPG engines, the other for diesel engines ... are formulated for the punishing temperature build-up in modern high-speed equipment.

Over the years, the company points out, engine oils have been tailored primarily to fit the needs of automobile engines, which are seldom used at maximum load for more than a few seconds at a time. On the other hand, farm and industrial tractors may be put on full load ... and occasional overload ... for long periods. These extremes in service require special lubricants, and I.H. aims to fill this need.

Agway will soon have 24 regional feed mills in operation ... with the completion of two new mills, at Poland Center (Chautauque County) and Batavia, New York. The company, operating in only 12 states, is the second-largest manufacturer in the U.S. ... with 2.8 million tons produced annually.

General manager Ron Goddard reports that 60 percent of Agway formula feed is delivered directly from mill to farm, and that three-fourths moves in bulk form.



Ford Motor Company is selling a new Model 7000, an 83-horsepower farm tractor with a revolutionary hydraulic draft-control system called "Load Monitor."

Load Monitor is designed to react to tractor and implement loads through torque changes in the tractor's drive line. It is sensitive and quick to relay implement-adjusting signals, enabling it to handle automatically a variety of field conditions, and is equally effective with fully- and semi-mounted and push-and-pull-type equipment.

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Dodge Division has taken a bold stance for 1972 with an all-new, completely re-engineered line of light duty trucks in fresh, contemporary styling to satisfy an awakening interest in the pickup or light duty truck as a second or third car. The new line of half, three-quarter and one-ton vehicles is tougher and more durable to do the work of trucks; roomier, quieter and easier-handling to provide car-like comfort and convenience.

The new Dodge features a completely new suspension system, 15-percent fewer stampings, double-wall construction and sealed-off wheelhouses for added splash protection. Galvanized metal, zinc primers and vinyl sealers protect vital body areas. A 25-gallon fuel tank is largest in the industry for comparative models.



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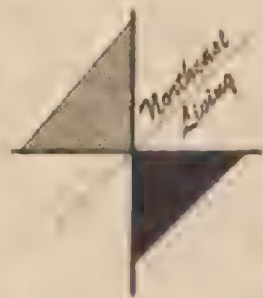
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GARDEN TALK

by Doc and Katy Abraham

Armchair Gardening

Right now, while the winds are howling, is a good time to study seed and nursery catalogs and plan for the spring planting season. You'll be interested to know that last year more than 20,000,000 women canned fruit and vegetables. Home



canning was done in nearly 90 percent of all farm homes and by some 8,000,000 urban families. We don't know how many suburbanites canned also.

How come canning and freezing are back in style? The main reason is to save money. Second best reason is that you can't beat the flavor of home-canned foods. Our bet is that 1972 will see more flower beds shortened and more vegetables planted, mainly because the pocket-book is going to be pinched harder.

Garden Superstitions Debunked

If you're planning on having a garden this spring, here are a few things that might influence you —

1. Must rows run north and south? No. Garden rows can run east and west or north and south. If they run east and west, plant tall-growing crops on the north side of the garden, so they won't shade the shorter ones.

2. Should you plant by signs of the moon? Not necessarily. (I'll get some letters on this one!) There's no scientific proof that vegetables should be planted according to phases of the moon. Nor are there records to substantiate the theory that frosts are more likely to occur when the moon is full. However, I can see how moonlight might affect plant growth, and I feel that it does provide some benefit. Does any reader have sound information on this?

3. Should you time spring planting according to trees flowering? This is okay, as it reflects the advancement of spring, but it's a heck of a lot safer to plant when old-timers near you say, "All danger of frost is past." Cool-weather crops such as lettuce, peas and radishes are exceptions.

4. Is cross-pollination between vegetables necessary? Usually nature takes care of this automatically. Many gardeners worry about vegetable plants crossing, but we say, "Don't worry about it, since you probably won't be saving your seed."

It is true that many closely related vegetables will cross-pollinate — for example, hot peppers with sweet peppers, summer squash with winter squash and pumpkins and watermelons with citron, to name a few. But the effect is only on the seed and not the fruit.

Thus you can safely plant melons with cucumbers, red tomatoes next

to yellow ones, etc. In fact, vegetables may be mixed in every possible combination without influencing the edible parts, and don't believe the story that vegetables won't do well unless there's a male and a female plant nearby.

Note: One exception is that sweet corn planted near field corn, pop-corn, or Indian corn might get pollen from them and take a different color shape and flavor.

House Plant Diseases

We've been asked why certain house plants rot or develop spotted foliage. Here's a key to certain diseases, and I hope it helps solve your problems. Also, keep in mind that overwatering (or poor drainage) is one reason some plants want to leave home.

1. **Crown rot or stem rot.** Due to fungi or bacteria, causing foliage to yellow or rot at soil level. Dust with Captan or re-pot.

2. **Damping off.** Young seedlings rot at base and topple over. Use light soil mixture, avoid overwatering and poor drainage. Dust soil with Terrachlor.

3. **Powdery mildew.** White, fuzzy spots on leaves. Avoid wet foliage. Dust with Mildex or Karathane.

4. **Virus (mosaic, ring spot, etc.)** Causes mottled foliage, stunted growth. Better destroy affected plant.

AA Garden Clinic

A reader writes, "Why is it I can buy a perfectly good English ivy vine from a florist, bring it into my home, and find it does poorly within a week?"

Answer — It's safe to say that many plants in dish gardens, planters, etc., are killed by overwatering. Plants in plastic, metal or glazed containers, when given more water than plants in clay pots, will suffer from a lack of oxygen around the roots. If water stands in the bottom of a container, growth is stunted, leaves turn yellow, and buds and blooms blast or fall off. Avoid constant soakings; also avoid teasing with small dabs of water daily. Try using clay pots set in ceramic, copper or brass jardinières and see if your luck improves.



Dusting venetian blinds takes less time if a pair of socks is slipped over the hands. Less bulky than a dust cloth, the socks also allow you to dust behind the tape and under the slats with both hands.

'ROUND the KITCHEN

with Alberta Shackelton

Dried Fruits For Winter Variety

Dried prunes, apricots, raisins, peaches and pears in one form or another can be real winter appetite teasers. Rich in energy, they also add a bonus of minerals and vitamins.

They are delicious meal and snack-time sweets for the whole family. I hope you will enjoy some of the following recipes.

BAKED ALASKA RAISIN PIE

- 1 1/2 cups fine crumbs (vanilla wafers or graham crackers)
- 1/4 cup softened butter
- 1/4 cup sugar
- 1 quart coffee ice cream
- Raisin Sundae Sauce
- Meringue

Combine crumbs, butter and sugar and press firmly against bottom and sides of a 9-inch pie pan. Bake in a moderately hot oven (375°) for 5 minutes. Cool. Spoon ice cream into crust. Freeze.

Prepare Raisin Sundae Sauce as follows: Combine 1/4 cup melted butter with 1 cup brown sugar (packed). Cook over low heat until very lightly browned. Remove from heat; slowly stir in 1 cup seedless raisins and 1/4 cup half and half. Return to heat and cook 1 minute more, until sauce is smooth and thickened. Set sauce aside to cool. This sauce may also be used for cakes and puddings.

Before serving, make Meringue by beating three egg whites until stiff. Gradually beat in 3/4 cup sugar and continue beating until very stiff.

To assemble, spoon sauce over ice cream in crust; then spread meringue quickly over all, being sure to seal all edges to crust. Place pie on board and brown in a very hot oven (450°) for 5 minutes, until meringue is delicately colored. Serve at once.

SCANDINAVIAN FRUIT SOUP

- 1 pound assorted dried fruits
- 1 quart water
- Grated rind and pulp of 1 small orange
- Grated rind and pulp of 1/2 lemon
- 1 or 2 cinnamon sticks
- Sugar
- 1 to 2 tablespoons cornstarch

Combine fruits, water and orange and lemon rinds and pulp and let stand about 1 hour. Simmer until tender. Sweeten fruit to taste. Combine cornstarch with a small amount of water and stir into fruit. Cook until slightly thickened.

Note: If you wish, you may use cranberry or other tart juice in place of the water. Also, you may add about a cup of pitted red cherries to cooked fruit.

This soup may be served hot or cold, as a first course or as dessert. A "dollop" of sour cream on hot soup is liked by some. Sufficiently thickened, it may be used as a sauce for puddings or pancakes, waffles or French toast.

APRICOT-PRUNE UPSIDE DOWN CAKE

- 3 tablespoons butter

- 1/4 cup light brown sugar, packed
- Cooked dried apricot halves
- Cooked dried prunes, pitted and halved
- 1/4 cup shortening
- 2/3 cup sugar
- 1 egg, beaten
- 1 teaspoon vanilla extract
- 1 1/2 cups cake flour
- 2 1/2 teaspoons baking powder
- 1/4 teaspoon salt
- 1/2 cup milk

Melt the butter in an 8 x 8-inch square pan and sprinkle with the brown sugar. Arrange apricot and prune halves, cut side up, with edges touching over sugar in pan.

Cream together the shortening and sugar until light and fluffy; add beaten egg and vanilla extract. Sift together the dry ingredients and add alternately with the milk. Pour bat-

and sugars, beat in eggs one at a time, and stir in vanilla extract. Sift together the dry ingredients and add alternately with the sour cream. Mix well and chill.

Drop by teaspoonfuls onto lightly greased baking sheet and bake in a hot oven (400°) for 12 to 15 minutes, or until lightly browned on top and done. Makes about 4 dozen cookies, depending on size.

For variety, divide the dough into three parts. To one part add 2/3 cup seedless raisins or chopped dates; to second part, add 3/4 to 1 cup shredded coconut; to the third part, stir in 2 tablespoons cocoa. 2 tablespoons sugar and 1 tablespoon milk. Or you may add coarsely chopped nuts or chocolate chips to dough, or simply sprinkle tops of cookies with a mixture of sugar and cinnamon before baking.

For easy filled cookies, drop teaspoon of dough on pan, flatten slightly, top with a small amount of cooked date-raisin-nut filling or marmalade, top with small amount of dough and bake as above.



Baked Alaskas are always elegant desserts to serve on special occasions. Baked Alaska Raisin Pie is both delicious and different. Photo: California Raisin Advisory Board

ter over fruit and bake in a moderate oven (350°) about 45 minutes, or until it tests done.

Remove from oven and turn upside down on a serving plate. Leave pan over cake a few minutes, so brown sugar can run down over cake. Serve warm with sweetened whipped cream.

SOUR CREAM COOKIES

- 3/4 cup shortening (part butter for flavor)
- 1 cup sugar
- 1 cup light brown sugar, packed
- 2 eggs
- 2 teaspoons vanilla extract
- 1 cup thick sour cream
- 3 cups all-purpose flour
- 1/2 teaspoon salt
- 1/2 teaspoon baking soda
- 2 teaspoons baking powder

Combine together the shortening

State Fair Food Demonstration Kitchen by USDA Consumer Meat Specialist, Sandra Brookover.

CHINESE POT ROAST

- 4 pounds chuck roast (USDA Choice or Good Grade)
- 1 clove garlic, minced (if desired)
- 1 to 1 1/2 teaspoons minced ginger root or
- 1 1/2 teaspoons ground ginger
- 1/4 teaspoon 5-spice powder or pumpkin pie spice
- 1 teaspoon salt
- 2 tablespoons brown sugar
- 1 tablespoon sherry
- 1/4 cup soy sauce
- 2 tablespoons salad oil
- 1 1/2 cups water
- 3 carrots
- 1 onion
- 3 potatoes
- 1 stalk celery quartered
- 2 tablespoons cornstarch
- 2 to 3 tablespoons chopped onion (green preferred)

Place meat in large bowl. Combine garlic if used, ginger, 5-spice powder and salt and rub over roast. Mix sugar, sherry and soy sauce; pour over roast and let stand 20 to 30 minutes in this marinade. Turn once.

Remove roast from sauce and brown in salad oil in a hot skillet. Pour marinade over roast, add 1 1/4 cups water, cover and simmer 2 hours. Pare and cut carrots, onion and potatoes in serving pieces, add to roast and simmer 20 to 30 minutes longer, or until tender.

Remove roast and vegetables to serving platter. Combine cornstarch with remaining 1/4 cup water and onions; stir into sauce left in skillet and cook until thickened. Pour gravy over roast and vegetables. Serves 8 to 8.

I'd Like To Hear From You

What food articles would you like to have printed in AA? I wish you would write and tell me. If there are sufficient requests for any subject to indicate a reasonably widespread interest, I will be glad to do feature articles on the topics which interest you.

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I saw this Chinese Pot Roast demonstrated in the 1971 New York

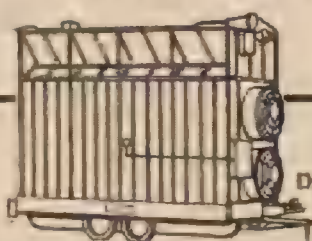
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Photo: All-America Selections

Gold Galore Marigold will give you a long season of large, colorful blooms and is beautiful by itself or in a flower bed with other plants.

ALL-AMERICA SELECTIONS

FOUR new flowers have won the annual All-America Selections awards for 1972.

The winning flowers are Carved Ivory, a large ivory-colored zinnia . . . Gold Galore, semi-dwarf gold marigold . . . Circus, a salmon and white double petunia . . . and Summer Carnival, a vigorous, large-flowered hollyhock.

Carved Ivory was awarded a silver medal, and the other three were awarded bronze medals.

Rigorous Testing

To win an All-America Selections award, each of these flowers had to go through a rigorous testing program. They were grown at 30 widely differing test garden locations in the United States and Canada. And each one had to compete against the most popular variety in its class currently in commerce . . . and be voted superior.

Carved Ivory, the silver medal winner, was recognized especially for its large, double, ivory-colored blooms.

The zinnia's clarity of color gives it an unmistakable look of quality, and makes an excellent contrast to the dark green foliage. Individual blooms are 5 inches wide, and of the cactus type. This means the petals are not flat and starched, but airy and soft, and this, coupled with the fine color, makes Carved Ivory excellent for flower arrangements.

The new zinnia is a hybrid, so the plants themselves are uniform, vigorous, and productive. The height is 2½ feet.

Marigold

The hybrid Gold Galore is a semi-dwarf, hedge-type marigold. Each plant may have as many as 25 blooms at one time . . . and the blooms are large, full, and a fine solid-gold color.

It is outstanding in vigor and uniformity, and is excellent either en masse or along with other plants in a flower bed.

Few other flowers will give you a long season of bloom and as much color in your landscape as Gold Galore. And this marigold will take beating from wind and rain and come out a winner, too.

Petunia

This year's petunia winner, Circus, has large, double deep-salmon and white blooms. Each petal is salmon toward the center and white on the outside, and as the petals overlap they create an interesting effect in the individual flower.

The plants are early-flowering and the flowers are well distributed which makes Circus excellent either as a specimen in a container or as a mass planting in a flower bed.

Another plus is the compact habit of Circus . . . not much over 1 foot in height, and not over 2 feet in width.

The fourth All-America flower winner for 1972, hollyhock Summer Carnival, flowers from seed the first year . . . and plants winter over and bloom well for many years.

Summer Carnival has attractive large flowers. The centers are fully double with a single row of guard petals framing the double centers. The color range is the widest yet . . . scarlet, deep rose, rose, pink, yellow and white. The plants are sturdy, 3 to 6 feet in height, and produce many, many blooms per plant.

Start seed of Summer Carnival early in the spring. It is excellent as a garden background plant, or does a fine job up against a fence or wall.

In addition to the four 1972 All-America Selections, the winners from the past two years are also popular.

(Continued on page 2)

American Agriculturist, January, 1972

VISITING

with
Home Editor Augusta Chapman

Happy New Year! Have you all made your resolutions for 1972? And are you still keeping them? I always make a few each year and before January is more than a few days old, have usually broken them! But that doesn't mean the cause is lost, for recognizing there's room for improvement in different areas of our lives is half the battle.

Why shouldn't we continue to make resolutions, and to try again after each failure, if at the end of the year we can look back and honestly say we've made some progress? I hope each of you will be happy in this New Year, that you will have good health — physical and spiritual — and when the year closes, that you will know the satisfying feeling that the year has been well lived.

Microwave Ovens

How many of you have one of these modern-day miracles, a microwave oven? I saw one demonstrated recently and was amazed when an apple in a sherbet glass was put in the oven and taken out several minutes later, baked to perfection and no holder needed to remove it from the oven. And I guess demonstrators always show how corn put in a paper bag will pop in just a few seconds.

People I've talked with seem to feel the microwave oven will probably never replace the conventional type, but that it can be a tremendous help to busy homemakers, whether they be farm wives or women going to work each day.

This oven has been on the market long enough so I'm sure some of you have one in your homes. If you do, I wish you'd write me a letter telling what you like about it, how you use it, and what the disadvantages are. I'd like to pass along your thoughts and experiences to other women readers of A.A. who may be thinking of buying a micro-wave oven at some future date.

Meat Additives Not Dangerous

I appreciate the work done by researchers to guard the public against harmful elements in our food, but sometimes wish they would announce their findings in a less spectacular manner. We humans are so disease conscious that we go into a real tizzy when we hear a test animal developed cancer after being fed some particular substance.

Often we don't stop to think (and the researcher fails to report) the quantity of said substance we'd need to consume in order for it to be injurious. The current controversy about additives in processed meats (ham, bacon, sausage, hot dogs, cold cuts, etc.) comes in this category.

Robert Rust, Extension Meat Specialist at Iowa State University, says, "Any of the compounds used in meat processing might be highly toxic in large dosages. Like salt for example; too much could kill you. But one of the basic ingredients of all processed meats is salt." This is

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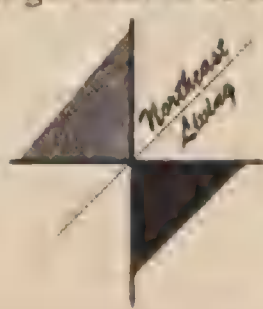
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also true of nitrates and nitrites, which are used to produce the characteristic pink color of cured processed meats.

Mr. Rust says that was a "big furor" when one researcher found cancer-prone rats developed cancer after being fed large amounts of nitrite. For a human to consume a comparable concentration by eating meat, according to Mr. Rust, "he would have to eat 40 pounds at one sitting."

Also, industries are sometimes harmed wrongfully by these reports, as with the recent cranberry, strontium 90-in-milk and mercury-in-tuna fish scares. Swordfish has disappeared from restaurant menus and supermarket counters, but I can't help wondering if in a few years it won't be proven that this delectable fish is safe to eat.

Instead of getting real excited over the next report that some substance can cause cancer or another dread disease, let's wait for further information — chances are there'll be little to get excited about.



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A pattern for old fashioned knitted fringe mittens? According to Mrs. Randolph Curry, R. D. 2, Sherburne, N. Y. 13460, these were made every winter by women in Sullivan County, New York, about 50 years ago.

This same request comes from Mrs. Virgil Lasher, Margaretville, N.Y. 12455.

A 7¼" pie plate and a 8½" break-fast plate in the azalea pattern china sold by Larkin Company about 1926? Mrs. Roy Peacock, 108 Mechanic St., Antwerp, N. Y. 13608, needs these.

Any idea where Mrs. Ted Lukie, Cove Rd., Moodus, Conn., can find Royale Glow Cream with Royal Jelly? This product used to be manufactured by the Royal Bee Company of New York.

Any pieces of Hanover China in "Spring Time" pattern? If so, please contact Mrs. Helen Glass, 1236 Gill Hall Rd., Clairton, Pa. 15025.

A Gebhardt (or similar brand) Sock Knitter? Mrs. Irving Nichols, R. D. 1, Box 179, Greenland, N. H. 03840, says these were popular for making soldiers' socks during World War I.

Correction!

We're sorry an error was made in our November issue. In the article, "Best Cooks at the Fair," the third place grand prize winner should have been listed as Mrs. Elizabeth P. Amie of Rochester, New York. Mrs. Amie won an Osterizer Blender for her raspberry jam.

Winners

(Continued from page 36)

The 1971 winning flowers include Peter Pan Plum and Peter Pan Pink, two compact-growing but large-flowered zinnias; Queen of Hearts, a constant-blooming, bright red annual dianthus; and Southern Belle, a giant-flowered hardy hibiscus.

Also on the 1971 popularity list are: semi-dwarf, butterfly-type snapdragon Little Darling, and Silver Puffs, an unusual light mauve-color true dwarf hollyhock.

The 1970 award-winning flowers are marigold Bolero, snapdragon Madame Butterfly, dianthus China Doll, and morning glory Early Call Rose.

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NEW YEAR'S DAY

by Frances D. Lawrence

A perfect day to start anew;
a day to re-create
the habits of a lifetime;
a chance to wipe the slate.

A copy of "Genealogy of the Cole Family" written by Frank White, Jr.? Mrs. Miriam Cole Brown, Hanover, Maine 04237, is eager to get this book.

The book, "Birds of the Bible" by Gene Stratton Porter? This request comes from Miss Edith Swarthout, 204 Main St., Penn Yan, N. Y. 14527.

Directions for making a door mat from binding twine? If so, would you share them with Mrs. Jacqueline Solomon, R. D. 1, Box 48, Sayre, Pa. 18840?

Any of the old glass or china "nest eggs" farmers used to fool their hens? Mrs. Thomas Parker, Quail

Hollow Rd., Marathon, N. Y. 13803, would like to get some.

A recipe for "Farmer's Rice"? This request comes from Mrs. Frank Hunter, Perkosié Park, Perkosié, Pa. 18944.

Directions for making doilies out of jar rings and yarn? Mrs. Freda Kristoff, Main St., East Princeton, Mass. 01517, would like this information.

Rules for the game "Speculation," played with double 12 dominoes? If so, will you send them to Mrs. Francis Libolt, Box 22, Clintondale, N. Y. 12515?

A recipe for chocolate cake made

with orange juice? Mrs. Erwin Evans, Box 31, Wallace, N. Y. 14890, says it was in an old Brer Rabbit cookbook.

Books by Grace Livingston Hill you would sell? If so, please send titles and prices to Mrs. Helen Hipp, 83 Sunny Valley Rd., New Milford, Conn. 06776.

Pieces of Seyli China, "Bella Maria" pattern? Mrs. Robert Benda, 62 West Fremont, Littleton, Colo. 80120, especially needs cups, but would consider all pieces.

A copy of the old "Ladies Home Journal Cookbook"? This request comes from Mrs. Edgar Setup, Jr., Star Route, Harrison, Maine 04040.

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Again this year, AMERICAN AGRICULTURIST is offering a choice of a summer or fall vacation in Hawaii. The itineraries are almost identical, so it's just a question of which time you'd rather visit the islands. Dates for the summer tour are March 11-23 and for the fall trip, October 9-21. Of course, those going in October will be in Hawaii for the Aloha Week celebrations.

We'll visit the four main islands, and here are just a few of the things we'll see in the "Paradise of the Pacific."

On Hawaii, the "Big Isle," we'll drive along historic Kona Coast, visit the City of Refuge, Captain Cook's Monument, the vast Parker Ranch of 300,000 acres, lovely Akaka Falls (higher than Niagara), and Hilo, orchid capital of the world. In Hawaii Volcano National Park, we'll see a lava tube, Halemaumau Firepit, Kilauea Crater and then drive along the new Crater-to-Crater Highway over rough lava flows down to the rugged coast line to see the famous black sand beach.

Maui is known as the "Valley Isle." It is second largest in the group and very fertile. Here we'll see "The Needle," a fern covered volcanic peak rising 2,000 feet above the valley floor, the Pali Coast, and Lahaina, first capital of the islands and historic whaling center where much of the movie "Hawaii" was filmed.

The third island visited is Kauai, the "Garden Isle." Here, an excursion by motor launch will take us up the Wailua River to a lovely fern grotto where we'll hear the "Hawaiian Wedding Song" sung as never before. We'll see acres of waving sugar cane, rice paddies, and field upon field of beautiful tropical flowers as we cruise along the river.

Another day we'll see the legendary Menehune Fishponds, curious Spouting Horn, and beautiful Wai-

mea Canyon, "Grand Canyon of the Pacific." Our hotel is located on Kalapaki Beach, one of the finest in the islands, and we'll have time to sun, swim and relax.

The last and best known island is, of course, Oahu, and here our hotel is on famous Waikiki Beach. Highlights of our stay here are a full circle tour of the island and visits to Sea Life Park, the Mormon Temple, Polynesian Cultural Center with its six recreated villages depicting the cultures of Samoa, Tonga, the Maoris, Tahiti, and Hawaii; also, Iolani Palace, Punchbowl Crater, the Kodak Hula Show, and a cruise through Pearl Harbor to Battleship Row where the sunken USS Utah and USS Arizona have been left as a permanent memorial to those who lost their lives on December 7, 1941.

There are so many other interesting things to do on your own — the fascinating International Market Place, Ala Moana Shopping Center, one of the world's largest, and the Dole pineapple cannery, to name just a few. We guarantee that by this time you will be completely under the spell of Hawaii and hate to leave.

All details of our Hawaiian Holiday have been expertly arranged by our tour agents, the Travel Service Bureau of Needham, Massachusetts. As with all our tours, everything is included when you buy your ticket, so there are no travel worries of any kind. It's really the perfect way to see Hawaii!

Don't Forget!

If you hurry, it's still possible to join either of AA's two February vacations — our Caribbean Cruise, February 12 to 25, with San Juan, St. Thomas, Curacao, Martinique and St. Maarten, the ports of call, or our Florida Circle Tour, February 19 to March 4, visiting all the major points of interest in Florida, includ-

ing Key West, Everglades National Park and the fabulous new Walt Disney World. Make your reservation today.

See A Different Mexico!

Our 1972 Mexican Holiday, March 6 to 20, will take you away from some of the usual tourist routes to see Colonial Mexico with its background of Spanish and Indian cultures — a Mexico full of charm which many people never see. We will gather in Chicago on March 6 and fly by American Airlines Astro Jet to Mexico City, the first highlight of our Mexican vacation.

Sightseeing in Mexico City will include the Sports Palace, Cathedral Square, Plaza of the Three Cultures, Chapultepec Park and the marvelous Anthropology Museum, the University, and San Juan Crafts Market. We'll also attend the Folklore Ballet and see the fabulous Tiffany Glass Curtain. A side excursion will take us to the Shrine of Guadalupe and Teotihuacan to see the ruins of a civilization which existed more than 1000 years ago.

On our way to the quaint town of San Miguel de Allende where world-famous artists gather, we stop at Tepotzatlan, San Juan del Rio (center of onyx craftsmanship) and Queretaro where one can imagine himself to be right in Spain. In fact, we visit so many interesting towns that each one seems more charming than the last!

In Guanajuato, the streets are unusually picturesque — narrow, overhung with balconied windows and lantern-lighted. Guadalajara is considered by many to be the most Mexican of all Mexican cities. Puerto Vallarta was a secluded fishing village until it became famous in the filming of "Night of the Iguana."

Patzcuaro is timeless, the same unspoiled, serenely beautiful village it has been for centuries. From here we'll visit the ancient island of Jonitzio where native Indians still fish with butterfly nets. Morelia is a lovely city with its Old World atmosphere and one of the prettiest city squares in all Mexico.

Other places we will visit are Toluca and the world-famous Friday Market, the spa of Ixtapan, the fortress-like cathedral and lovely Borda Gardens of Cuernavaca, and of course Taxco, for no visit to Mexico would be complete if this delightful village were not included. Its cobblestone streets lined with red-tiled houses, its flower-covered shops and old town square filled with trees make it a photographer's paradise.

Send for the folders which interest you, study the day-by-day itineraries, and decide to travel in 1972 with AMERICAN AGRICULTURIST and Travel Service Bureau. You'll always be glad you did!

ONE LAP WIDE

by Geraldine Ross

One lap wide, the world tonight,
Bounded by a lilting rhyme,
A lullabye and candlelight,
A bun and "once upon a time!"
Stars twinkle, far and kind and bright,
Horizons wait to push apart;
Brave dreams rest in the "hold me tight
Till tuck me in" against love's heart.
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PHILIPS: 220 ACRE dairy farm, 38 cows, 15 heifers, complete line machinery, grain, nice home, \$95,000. Others, write us your needs. Lynn, Realty, Phelps, New York 14532. Phone 816/548-8477.

FARMS - STOCKED & EQUIPPED or bare. From farmers to a 1500 acre farm and everything in between. Example: 300 acre farm, stocked and equipped, brook, lake, 80 head, \$50,000+ gross income, \$247,500 - terms. Also 300 acre farm, 100 cows, good equipment, \$220,000. Many others. Star Realty Co., Route 10, Walton, N.Y. 13856, 607/866-4058.

WALK-IN DAIRY SETUP 443-acre upstate N.Y. farm comes with 30 Holstein milk cows, diesel tractor, Farmall tractor, long list of machinery, 4 Syngs milking, 500 gal. bulk tank, dumping station included. 12-room stone home about 115 years old, bath, basement, gas furnace air heat, good 40 x 100 cattle barn, 44 stalls, 35 x 60 ft. on barn with 18 stalls, 3 box stalls, calf barn, 250 acres tillable, 200 in hay, 3 ponds, creek, well. Long frontage on blacktop road. Amazing value here for only \$60,000. Free . . . new 256-page Spring Catalog! Describes and pictures hundreds of farms, ranches, town and country homes; businesses; coast to coast! Specify type property and location preferred. United Farm Agency, 501-A Fifth Ave., New York, N.Y. 10017. Area code 212/687-2623.

240 ACRES, dairy. Very nice, 624 acres, 90% tillable, 140 acres, dairy, 135 acres, 145 tillable, good buildings. Van Cleave Real Estate, New Oxford, Pa. 17350. Phone 717/684-8201 evenings.

BLUE CHIP PROPERTY - 136 acres in County of Sussex, being one of New Jersey's most beautiful counties. Main residence of two rooms, 3 1/2 baths, cottage, two-family duplex. Numerous garages, outbuildings including modern dairy. Panoramic views from all parts of property. Priced at \$350,000.00. Shown only by appointment. (Family owned.) Harold and Alice Gibbs, Realtors, 219 Main St., Hackettstown, N.J. 07840. Phone 701/837-3044 - evenings 701/857-1516.

FREE CATALOG The Four Effs catalog describes a wide variety of upstate New York and New England listings. You'll find the descriptions clear and concise, without superlatives, hearsay claims, or vague generalities. And, you'll also find helpful suggestions on buying real estate, whether experienced or novice. A few words about special needs, price, etc., may be helpful. Four Effs, Box 264AA, Manchester, N.H. 03105. (Representatives wanted.)

FARMS FOR SALE

VIRGINIA'S EASTERN SHORE - 14 acres on macadam road, near village, 2 acres tillable, remainder in woods. Estimated 1000 ft. frontage. 10 minute ride to public dock. John H. West, Broker, Nelsonia, Virginia 23414.

A 90 ACRE MODERN DAIRY farm in the Berwick-Oyster area. Has exceptionally good dairy barn with 62 tie stalls plus room for 30 heifers. Has bulk tank, pipeline milker, cow milks, more elevator system, 3 silos with unloader and 7 open silos. Home is above average with 4 rooms and 2 baths. Farm has 45 acres of ripe bottom land. Priced at \$35,000.00 here and can be purchased on a Land Sales Contract. Call Zor Benedict at 914/343-1708 or write Barman's Realty Sales, Inc., at R.D. #4, Middletown, New York 10940.

160A BEAUTIFUL CAYUGA LAKE farm with Colonial 10 room house, 3 barns, lake front rights, only \$69,500. 245A Hopewell soil excellent location, only \$45,000. 250A ideal beef farm, barn 46 x 120 with all good house, only \$59,500. 140 free stalls, double 8 milker, 2 houses, bare or equipped, owner financed. 300A excellent 67 stall pipeline barn, 3 silos, good house. 560A cash crop with 58 dairy barn, best of location, minimum down. 350A, 100 cow dairy, 7 houses, owner financed. 898A cash crop, owner financed. 265A 40 cow dairy, \$45,000. Several free stall operations. Samples - try us. Please give phone number. Mail-Tel Real Estate, 10 William St., Auburn, N.Y. 13021.

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RETIRED ELDERLY FARMER will buy partnership in farm, or quantity house for living there part of year. Phone evenings, 1/215-1108-5695. (Philadelphia, Penna.)

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BUYERS WAITING! For good dairy farms within 250 miles of New York City. Have in stock. We can finance. Also, interested in recreation land, timber or development land. Make your offer now! Our company also buys direct. Barman's Realty Sales, Inc., R.D. #4, Middletown, New York. Phone 914-343-1108.

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WANTED ALL KINDS OF FARMS, vacant land and timber lots. New York and Pennsylvania locations. W. W. Werts, Real Estate, Johnson City, New York 13790.

SOUTH OF N.Y.S. THRUWAY - needed for a special customer - an outstanding farm set up for 80 milking cows with, at least, 200 tillable acres. This young couple makes a million lbs. of milk per year. Terms would be helpful. Barman's Realty Sales, Inc. at R.D. #4, Middletown, New York 10940. Tel. 914-343-1108.

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WANTED: RAW FURS: Beaver, muskrat, mink, fox, raccoon, otter, fisher, etc. Top market prices. Prompt returns. Carl's Trading Post, 2908 Elm Street, Brighton, Mass. 02716.

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MARRIED MAN with orchard experience to operate 85 acre fruit farm, producing high quality fruit for roadside stand. Write Hill Top Orchards, Beaufort, Conn. 06405.

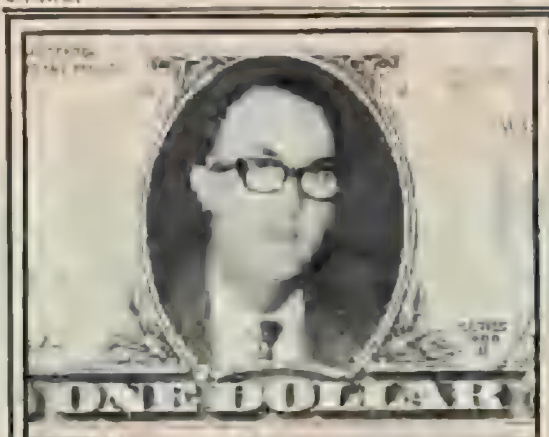
MAN, POWER, RELIABLE for heavy personal work in modern kennels. Room, board furnished for single man; small apartment for married men without children. Competitive salary, liberal fringe benefits including pension plan. List references in first letter. The Seeing Eye, Inc., Box 373, Morristown, N.J. 07960.

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ATTENTION: Home Winemakers and Growers Informative, quarterly published. "Vineyard View" \$3.00 per year. Finger Lake Wine Museum, Hammondsport, New York 14840.

BEAUTIFUL DOMINOES with "Wild" 100 no. instructions. Playing "Solitary", "Puzzle" and others. Copyrighted. Price \$5.50 postpaid. Baker Dominoes, Barker, Texas 7741.

INITIALS OF YOUR CHOICE! National advertised quality plastic coated playing card double deck. \$4.25. GVL Associates, 510 Oakdale, Massapequa Park, New York 11762.

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TRUCK EQUIPMENT - Mid-equipment truck bodies, hoists and snow plows. In roll back machinery beds. Dealership available. Send inquiries to F. P. Kleiter, Distributor, Sand Beach Rd., Auburn, N.Y. 13020. Phone area code (315) 253-5782.

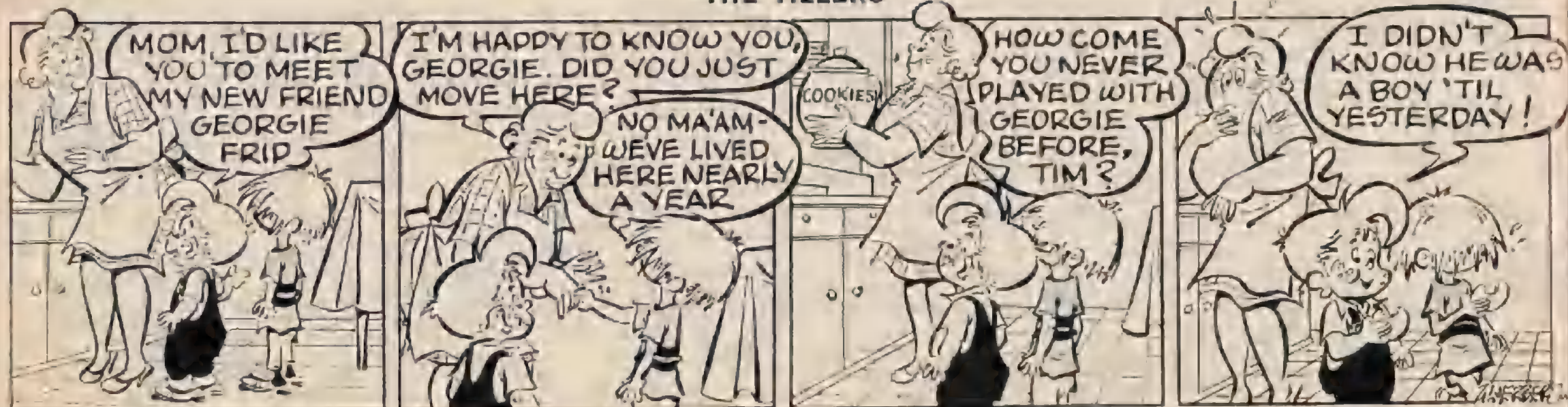
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WANTED: ALLIS-CHALMERS vote in Write Brice Cressy, Andover, Ohio 44003.

WHOLESALE DISTRIBUTORS Farm supplies, Patz Barn cleaners, replacement for all cleaners. Silo unloaders, cattle feed several types. Steel building frames, cement buildings, all steel or part wood for all purposes. Dealers needed in some areas. 5 Farm Supply, Inc., Intercession Route 31, 232, Rome, New York 13440. Phone 81-67111.

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THE TILLERS



SITUATIONS WANTED

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NO HUNTER FAMILY should be without this new, second edition of the Remington "Wild Game Cookbook". 174 pages of tested recipes plus these big extras - smoking game, dressing game, shipping game, sauces, stuffings, taste tips and sourdough breads. For your copy send \$2.95 to Cookbook, Dept. PS-11, P.O. Box 731, Bridgeport, Connecticut 06601.

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Handy on the Farm



Double Duty - A concrete floor doubled as a feeding floor and bunker silo by using panels to form the sides. These were sections 4 feet high and 16 feet long with A-shaped braces of 2" x 8" covered with exterior painted 1/2-inch plywood for the face side. Four sections on a side make the silo 28' x 64'. These butted up against 2-inch pipes and a row of planks along each side as a buffer. Sections were on 4" x 4" skids.

Iron Latch - A heavy gate latch for cattle was made from an iron rod shaped like a long-stemmed letter "P" and mounted in two guides made from heavy strap iron. The hand loop on the latch drops over the head of the lag screw as the bolt is shot, locking it closed.



No-Roll Barrel - To keep the junk or garbage barrel from tipping, use the idea shown here. A steel collar shipped over a post has two "V"s notched into same. Bend out the center so the barrel edge can be slipped underneath the notch, and you have the barrel secure, even in the strongest gale.



First of the four 4' x 16' plywood panels to make up the side of the 28' x 64' bunker silo is pulled into position and pushed against pipes set in holes 8 feet apart in the concrete floor. Pipes are removable.



Extended - The length of this grain auger was increased by welding an extra piece to the shaft. A telescoping pipe that can be extended to cover the auger was added. A pair of "feet," made of iron rods, were attached to the telescoping pipe which kept the auger from striking the floor when the bin was about empty.

The Song of the Lazy Farmer

I am so old I can recall when workers never sassed at all; the boss was a respected gent and ev'rything that he said went. Though hired men got smaller pay, they worked lots harder ev'ry day; they hardly ever

disagreed when they were told what time to feed the hogs and hens or milk the cows, nor was it likely to arouse their dander if the boss said, "Now, today get going with the plow." In those days it was quite a crime to rest upon the boss's time and no one yet had learned to scold 'bout ev'ry other Sunday off.

Boy, times have sure changed, haven't they? It's getting harder ev'ry day to tell just who the boss might be, my sassy hired man or me. That guy's an independent bird, he argues with my ev'ry word; whate'er I tell him he should do, he takes his own time getting through. When he is in the mood he works, but half of ev'ry day he shirks; I never bother to complain 'cause if I did Mirandy Jane would quickly jump to his defense, and I am sure it don't make sense to argue with those two, by gee, they're both a whole lot bigger'n me.



American Agriculturist, January, 1972

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Dates to Remember

Jan. 5-7 - Northeast Weed Science Society Meeting, New York City

Jan. 10-14 - 56th Annual Pennsylvania Farm Show, Harrisburg, Pa.

Jan. 12 - New York State Agricultural Society Meeting, Hyatt House, Thruway Exit 24, Albany, N.Y.

Jan. 12-13 - Empire State Soil Fertility Association Annual Meeting, Syracuse, N.Y.

Jan. 16-19 - Regional Horticultural Meeting and Trade Show, Hotel Roanoke, Roanoke, Va.

Jan. 17-21 - 21st Annual Beef Cattlemen's Short Course, Cornell University. \$20 fee. Applications by January 14 to E. A. Pierce, Morrison Hall, Ithaca, N.Y. 14850

Jan. 18-19 - Fifth Annual Research-Industry Conference, sponsored by American Forage and Grassland Council, Executive Inn, Louisville, Ky.

Jan. 18-20 - Annual Veterinarians Conference, Cornell University, Ithaca, N.Y.

Jan. 18-20 - New York State Horticultural Society Meeting, Rochester, N.Y.

Jan. 19-22 - New York Holstein-Friesian Annual Meeting, Lake Placid, N.Y.

Jan. 22-29 - New Jersey Farmers Week, Rutgers University, New Brunswick, N.J.

Jan. 24-25 - 57th Annual Meeting National Dairy Council, Royal Sonesta Hotel, New Orleans, La.

Jan. 25-27 - New York State Horticultural Society Meeting, Kingston, N.Y.

Jan. 25-27 - Vermont Farm Show, Barre Auditorium, Barre, Vt.

Jan. 26-28 - Annual Lime and Fertilizer Conference, Penn State, University Park, Pa.

Jan. 31-Feb. 1 - 33rd Annual New England Farm Electrification Institute, University of Connecticut, Storrs, Conn.

Jan. 31-Feb. 2 - Cornell Agricultural Waste Management Conference, Syracuse, N.Y.

Feb. 14-15 - Certified Seed Potato Growers Conference, Syracuse, N.Y.

Feb. 19-27 - 28th Annual National Antiques Show, Madison Square Garden, New York City

Feb. 23-24 - Massachusetts Dairy Farmers Seminar, Highpoint Motor Inn, Chicopee Falls, Mass.

THE OLD ROAD

by Genieva Pawling

The road was made by sturdy wheels,
By horses moving slow
To haul the loads of hay and grain,
But that was long ago.

The mire hung thick upon the wheels,
And dropped with heavy thud,
It gave one last resigning sigh
And joined its native mud.

At night light hooves beat out a tune
To buggies' jounce and bound,
Lighthearted laughter rode the breeze
And hills gave back the sound.

The toiling horses come no more,
The belles and beaux are gone,
Among the hills the echoes sleep —
The lonely road stays on.

American Agriculturist, January, 1972

FARM EMPLOYEE EVALUATION

PERFORMANCE FACTOR	FAR EXCEEDS JOB REQUIREMENTS	EXCEEDS JOB REQUIREMENTS	MEETS JOB REQUIREMENTS	NEEDS SOME IMPROVEMENT	DOES NOT MEET MINIMUM REQUIREMENTS
Quality	Leaps tall cowbarns with a single bound.	Must take a running start to leap tall cowbarns.	Can leap over short cowbarns only.	Crashes into cowbarns when attempting to jump over them.	Cannot recognize cowbarns at a glance.
Timeliness	Is faster than a speeding bullet.	Is as fast as a speeding bullet.	Not quite as fast as a speeding bullet.	Would you believe a slow bullet?	Wounds self when attempting to shoot.
Initiative	Is stronger than a 5-plow tractor.	Is stronger than a bull elephant.	Is stronger than a bull.	Shoots the bull.	Snells like a bull.
Adaptability	Walks on water consistently.	Walks on water in emergencies.	Washes with water.	Drinks water.	Passes water in emergencies.
Communications	Talks with God.	Talks with the angels.	Talks with himself.	Argues with himself.	Loses these arguments.

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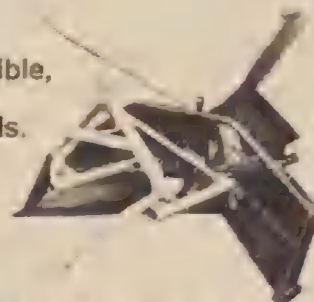


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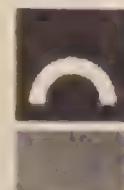
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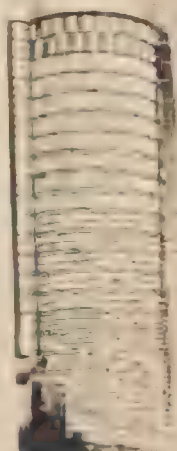


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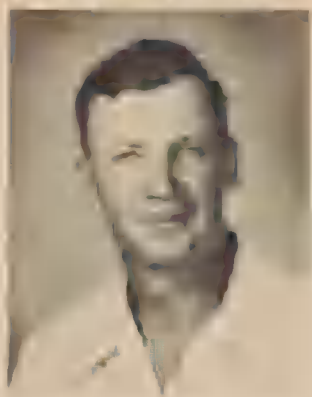
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Gayway Farm Notes

by HAROLD HAWLEY

THIS IS PROGRESS

We've been privileged to attend the annual meeting of several farm organizations over the years . . . most particularly and regularly that of New York Farm Bureau. There have always been good discussions of issues and able proponents of the pros and cons.

In recent years, it has been most encouraging to note two changes. There are more and more farm men and women who are extremely able at standing up in a meeting and presenting a point of view. In addition, a much higher percentage of the delegates who come to such meetings are informed about the issues.

Add these two forces together . . . better information and more expertise at presenting it . . . and it means a more effective voice for agriculture. It's hard to imagine any single thing that the industry needs more . . . or which can have more influence on where we go as an industry . . . than our ability to produce informed, effective spokesmen. We hail the progress made to date and hope for more!

CORN HARVEST

Any recitation of experiences harvesting corn this fall has to make mention of the almost ideal weather which prevailed nearly to Thanksgiving time. For most people in our area, harvest was finished by the time winter weather arrived. That is quite a switch from the last couple of years!

One of the impressive things about farming is the ingenuity with which farmers solve problems. The problem this fall, in our area, was a sizable increase in corn acreage, with pretty good yields . . . which meant a lot of extra tonnage to store or sell.

Some met the challenge with new cribs. In past big-crop years, new cribs were commonplace. This year, sales from the field to dispose of the crop above storage capacity were more common. The sales were largely to truckers or directly to other farmers who had livestock.

We noted a step-up in the number of deals where one farmer sold high-moisture corn (HMC) to another . . . either in the seller's field, or delivered to the buyer's silo. We look for this to become a permanent part of the marketing procedure.

Storage

A rather interesting reflection of farmer judgment surfaced this fall. Some were sure this was just the year to store, and bought at harvest time accordingly. Some growers even built additional storage to enable them to buy a little extra corn for speculation.

Others, not convinced of this future storage windfall, were willing

enough to take the price out of the field and let someone else assume the risk of ownership. At any rate, by storing more in silos as HMC, and by scrounging around for markets, the collective marketing and storage effort of a lot of farmers made possible the handling of a large Northeast crop without too great a strain.

A complication occurred by late October. The fine warm weather we all appreciated had made some early-cribbed corn begin to heat and spoil. A few cribs were offered for sale at just the time when others were beginning to run out of storage and were anxious to sell the remainder of the crop from the field. Truckers and commercial outlets with dryers were pushed for a few days, but the job got done.

Possibly the one who took a beating in all this was the "new grower." These were the ones whose acreage was in corn this year rather than in a government retirement program. Some buyers felt their obligation was to take care of their regular customers rather than to use their facilities for these new growers.

In most cases, at-home storage was not available for this new production, and there was a little panic to find a buyer. A few transactions were made that were far below value. Many of us were worried this might break the market, but such did not turn out to be the case.

ROADSIDE EXPERT

Nothing gripes me more than a guy who has the answers to another's problems before he even knows enough about the business to understand the problems. I'm about to stick my neck out and put myself into that category.

A problem common to a lot of farmers prompts these comments. Many of us are most fortunate to have dealers who do a fine job of stocking parts and giving service on the equipment they sell. Some other dealers either do not anticipate their needs as well . . . or just don't choose to tie up the money to keep an inventory large and complete enough to meet the needs of the trade.

And again, some dealers have better service from their branches and factories than others. At any rate, we know of corn pickers and combines which did not finish the 1970 season for lack of parts . . . some of which came just in time to get going in 1971. Tractors that sit in a dealer's shop all torn down and useless for three or four months until some part finally arrives from the factory are a most costly circumstance, both for the farmer with work to do and for the dealer with a shop tied up and work undone.

What's the cost of a ten-day delay

while a self-propelled forage harvester sits still for lack of a water pump?

In fairness to dealers, it must be stated that the unbelievably poor service given by some trucking lines accounts for part of the delays in getting the parts, or even the long-awaited new machine.

We all recognize any company's desire to have the customer use "genuine parts." In some cases, such parts are different and better. In other cases . . . most bearings, sprockets, belts, water pumps, alternators and generators, various gears and shafts, and much of the electrical and hydraulic paraphernalia . . . the basic part is neither unique nor different, except for the final coat of paint and the particular set of identifying numbers.

Here's where I stick my neck out. The owner's manual could save us a great deal of grief if it said "gear so and so IH 96778 or JD 80091 or basic gear 1½" hole, ¼" keyway, 27 tooth, ½" pitch," etc. (as some dealer's manuals do).

Bearings could be identified so that one could replace them by number or description at another source if the local authorized dealer was temporarily out.

Such a basic thing as a water or fuel pump could be found elsewhere if a person was armed with sufficient description so he could intelligently telephone his needs to other dealers. If the owner's manual carried such descriptions, and a list of interchangeable parts, we would buy from "our" dealers for most of our needs, but would save a lot of anguish and cussing if we had alternate sources in cases where he couldn't deliver the goods.

Such flexibility becomes increasingly important when so much money is made or lost depending on whether a particular machine can be kept rolling during a few key days.

With more and more difficulty in finding places of business open on Saturday afternoons, and over long weekends . . . and with deliveries by freight lines so slow and uncertain . . . it has become an economic must that there be an emergency parts source in addition to the regular dealer.

SILENCE IS GOLDEN

We've tried it several ways, but have concluded that the only way for two people to milk in a parlor is to have rules about conversation.

A radio for the parlor seemed like a good idea when we first started. It was, unless one thinks it is important to concentrate a little on the job at hand. With the news coming on, or just the usual commentary, it was next to impossible not to slip up on doing something.

So out went the radio. Conversation can be just as demanding of one's attention as the radio. From time to time we made half-hearted attempts to cut down on the discussions, but always slipped back. Finally, we went the whole way. No talk except as it applies to the job at hand!

Once the habit of talking was broken, this really presented no problem. Boy, does it ever speed up

milking . . . and hopefully improves the quality of the job even more! We like to talk as well as the next guy, but have learned that it will keep until the milking is done.

PUZZLING, ISN'T IT?

We had a heifer become pretty well spooked by dogs this fall. She got separated from the bunch, finally got out of the pasture and became pretty shy of man or beast. We have riding horses, and could either run her down and get a rope on her or generally loose-herd her home if we were lucky.

Neither alternative had much appeal. This running a heifer down always ends up with a bunch of fences to fix, a few unhappy neighbors, and a heifer who is certainly not improved by the whole process.

Driving a single animal home across three bridges and through town along a fairly busy highway doesn't sound like a very good idea either. We can handle a bunch pretty well with a couple of horses, but a single hawky animal is something else again.

Anyway, for lack of a corral in barn where we could feed and tame her and eventually catch her, we decided she had to be moved. A tranquilizer gun sounded like the answer. We'd shoot her, get a rope on her, and truck her home.

Would you believe that . . . although you can go into your local drugstore and buy sleeping pills in sufficient quantity to kill yourself if they are used indiscreetly . . . a tranquilizer gun and ammo for use on livestock is another matter?

Do the local veterinarians have one? No. How about the SPCA? Surely they would have one to catch an otherwise elusive dog. Wrong again. The state police? No, they have none. Conservation officers who might want to tag animals for research? "Maybe there may be one in Delmar. Nothing local."

How about the Vet College at Cornell? A call revealed that they had one with the tranquilizer under lock and key. Arrangements could be made . . . and were.

The whole point is that it was quite a surprise to us that it was so hard to find such a gadget, and that its use was so restricted and regulated . . . when humans can get tons of tranquilizing materials both with and without supervision!

SECOND GUESSING

Party permits were granted to deer hunters for the Adirondack area. Whether this was wise or not is not my concern at the moment however. What has interested me is the number of groups and hunting clubs that got the party permit and intentionally did not fill these permits . . . in some cases even reporting back to the Department of Environmental Conservation that the permit had been filled; that is, a doe taken as allowed.

So we have a case of lack of confidence in Department decisions, plus a regrettable lack of communication between the two groups. Who is right or wrong is really not the issue. The issue is that this is no way to manage a deer herd!

American Agriculturist, January, 1971



BUREAU

FAILURE

I have been delivering fresh farm vegetables to the Lord Jeffery Treadway Inn at Amherst, Massachusetts, for some time and received monthly payments. I made the last delivery on March 5, 1971, at which time there was a balance of \$83.45 due me.

On March 22, I received notice from the Inn that our contract would end April 1 and all bills were to be sent to Treadway Inn Corporation in Rochester, New York. I sent my bill but had no answer. Later, they advised me that the corporation had been sold to NBO Industries of Paterson, New Jersey, and that my letter and bill were being forwarded there.

I have written and phoned New Jersey without satisfaction. Anything you could do for me would be most appreciated.

We regret that we were unable to collect the money due our subscriber. In spite of several letters to Treadway Inns at Rochester and NBO Industries in New Jersey, asking for the name of someone we could contact, we were unable to get an answer from anyone.

MAIL ORDER HOUSE

A couple of months ago, Attorney General Louis J. Lefkowitz obtained an order restraining a New York mail order house from false advertising, ignoring customers' complaints and requests for refunds, and accepting prepaid orders for products when they are not available for prompt shipment.

The company named in the order is Unity Buying Service of Hicksville and Mount Vernon, New York.

The order provides that Unity Buying Service will not:

- 1) Misrepresent the amount of "savings" to customers;
- 2) Delay the making of refunds;
- 3) Advertise merchandise it cannot ship in twenty days (for most items);
- 4) Advertise products as available at "factory prices" when they are not;
- 5) Refuse to refund shipping costs and insurance costs to customers who returned incorrect or defective merchandise.

Furthermore, the firm must:

- 1) Clearly and conspicuously set forth in the advertising that there is an annual membership charge which must be paid for customers to take advantage of the items offered for sale; and

2) Employ at its Mount Vernon, New York location a sufficient number of competent help to answer all telephone calls after no more than one minute, to take all information on a complaint and to submit that information promptly to the company's main office.

The court directed restitution to all consumers who had done business with the firm and had not received merchandise or refunds, and directed the firm establish a fund of \$25,000 to assure refunds to all consumers entitled to them. The money

has been placed in an interest-bearing escrow account under the supervision of the Attorney General.

LIABILITY

"If I give permission for someone to hunt on my posted land, am I liable for any injury he might receive?"

There is always a potential liability when anyone enters on your land. The hunter must accept the property as he finds it, but he has the right to be warned of any known hazards that may exist. And, in carrying on your operations about the farm, you must exercise reasonable care for his protection.

Our best suggestion would be that you maintain adequate liability insurance. If you have any specific questions, you should check with an attorney or your insurance agent.

WARNING

We have received the following warning, directed to all producers of farm products, from the New York State Department of Agriculture and Markets:

Before selling your produce, be sure that the buyer is licensed and bonded to do business in New York State.

Under Article 20 of the Agriculture and Markets Law, all commission merchants, dealers and brokers of farm products must be licensed and must file a surety bond conditional on prompt accounting and payment to growers. The license is in effect for only one year, July 1 to June 30; it must be renewed every year.

Changes and shifts in the marketing system are constant — many mergers occur; smaller middlemen are going out of business; financial problems cause bankruptcies and delinquencies — so those who were licensed last year may not be licensed this year.

The licensing law, enforced by the New York State Department of Agriculture and Markets, is designed to protect you, the grower. But, to avail yourself of this protection, you have an obligation to determine whether the buyer is licensed and bonded. To find out, contact:

New York State Department of Agriculture and Markets
Division of Marketing
Building 8, State Campus
Albany, New York 12226
Phone: (518) 457-4990.

Remember, assure yourself of payment for the fruits of your labor. Deal only with licensed and bonded middlemen; get all transactions in writing; read contracts before signing. If problems arise, contact the New York State Department of Agriculture and Markets.

ADDRESSES WANTED

Mrs. Dennis Hatt, a Korean girl called Brenda, who came to the States in 1970. Her Korean name is Yon ook Gak. A friend would like to get in touch with her.



Rod Guichard, agent from Randolph, N.Y., delivered checks to Mrs. David Andruski of Cutchogue, L.I., N.Y. She received \$5360.00 under her husband's North American policies. Mr. Andruski passed away in the hospital sixteen days after his accident when the car he was driving veered off the highway and crashed into a tree.

Mr. Andruski first took out North American protection in 1950 and added more twice later. Death benefits went up an extra \$1750 for keeping policies renewed, they paid \$3725. Medical expense payments were \$1110. Mrs. Andruski gave this letter of thanks:

"I'd like to express my appreciation to the North American Accident Insurance Company for the prompt attention I received after sending in my claim, and I am sincerely grateful to their agent Mr. Rod Guichard for his kindness and assistance to me at a time I needed it most."

Mrs. Martha Andruski

A FRIEND'S NAME MAY BE IN THIS LIST.

James Dyke, Angelica, N.Y.	\$1248.29	Harold C. Murray, Fort Plain, N.Y.	\$ 188.42
Tractor tipped over—broke arm, leg		Cutting logs—injured arm	
Susan C. Elwood, Whitney Point, N.Y.	583.38	Roger Lottmann, Canajoharie, N.Y.	570.01
Thrown off spreader—injured hip		Went thru glass door—cut wrist	
Sharon K. Farness, Allegany, N.Y.	1355.51	Enzio T. Dorsino, Middleport, N.Y.	222.00
Automobile accident—injured knee		Fell down stairs—inj. back	
Mary Ann Salisbury, Otto, N.Y.	1439.99	Philip Davis, Elbridge, N.Y.	307.00
Fell in kitchen—broke leg		Two snowmobiles collided—broke foot	
Douglas D. Harvey, West Valley, N.Y.	859.70	Raymond F. Years, Victor, N.Y.	896.94
Fell loading hay—internal injury		Slipped on ice—broke back	
Iva Hatfield, Moravia, N.Y.	415.80	William E. Van Houten, Pine Bush, N.Y.	122.14
Fell on ice—broke ankle		Stood on fence—broke arm	
Howard M. Teeter, Locke, N.Y.	592.84	Francis E. Powley, Medina, N.Y.	156.57
Tripped over cord—broke ankle		Knocked by row—broke leg	
Scott Green, Panama, N.Y.	965.93	Harvey L. Ackley, Pulaski, N.Y.	1561.42
Fell skiing—broke leg		Fell from roof—broke hip, ribs	
Nicholas Rizzo, Sr., Portland, N.Y.	743.64	Gregory A. Amos, Richfield Sprgs, N.Y.	426.70
Fell getting off tractor—inj. back		Fell from tree—head injury	
Mary M. Personius, Horseheads, N.Y.	325.00	Anna Halkowich, Richfield Sprgs, N.Y.	826.14
Fell on waxed floor—broke knee		Slipped and fell—inj. head	
Alma Janne, Sherburne, N.Y.	450.00	Eugene Slater, Milford, N.Y.	114.51
Fell on ice—broke ankle		Hit clutch on snowmobile—cut knee	
Ronald D. Santamora, Churubusco, N.Y.	237.42	Diane Putman, Heuvelton, N.Y.	734.37
Snowmobile tipped over—cut leg		Fell off snowmobile—broke collarbone	
Robert Sears, Churubusco, N.Y.	324.48	William Eastman, Ovid, N.Y.	1093.64
Pulled off wagon by horses—inj. ankle		Bearing broke—injured eye	
Richard D. Phillips, Homer, N.Y.	486.70	Donald Uitti, Trumansburg, N.Y.	1026.33
Snowmobile acc.—broke knee		Thrown from snowmobile—head injury	
Casper J. Maury, Cortland, N.Y.	482.86	Merritt King, Sharon Springs, N.Y.	132.86
Fell from scaffold—broke collarbone		Caught in snowblower—cut finger	
Thomas W. Burns, Bovina Center, N.Y.	343.59	Charles Wulforst, Hornell, N.Y.	295.00
Auto accident—cut scalp		Thrown from snowmobile—inj. knee	
Paul Gray, Delancey, N.Y.	809.80	Thomas Stephens, Cameron Mills, N.Y.	1014.01
Cutting firewood fell—inj. knee		Automobile acc.—injured back	
Harold Biehl, E. Concord, N.Y.	568.30	Barbara A. Ford, Savona, N.Y.	793.73
Knocked by cow—inj. knee		Slipped on ice—broke leg	
Herbert J. Sweet, Chateaugay, N.Y.	890.00	Dorothy R. Pugsley, Riverhead, N.Y.	1239.90
Knocked down by snowmobile—inj. back		Auto accident—broke knee, ankle	
Elsie Duval, Chateaugay, N.Y.	800.96	Wilbur Duval, Orient, N.Y.	295.00
Slipped on kitchen step—inj. ankle		Fell down stairs—broke arm	
Everett Roda, Byron, N.Y.	313.89	Bruce M. Snapp, Newark Valley, N.Y.	400.00
Slipped on ice—broke leg		Slipped and fell—broke teeth	
Melvin Kubecka, Mohawk, N.Y.	571.27	Gary McKee, Watworth, N.Y.	399.28
Part of machine fell—broke ankle		Lifting snowmobile—inj. back	
Joseph Lamanna, Mohawk, N.Y.	361.20	Marvin Vanderwege, Palmyra, N.Y.	1126.42
Thrown from snowmobile—inj. shoulder		Slipped getting in truck—inj. arm	
Frank Rose, Adams, N.Y.	1457.14	Paul A. Martin, Strykersville, N.Y.	164.90
Caught in chain—crushed leg		Snowmobile ran into wire—cut hand	
Milton Lehman, Lowville, N.Y.	334.34	Phyllis J. Harris, Troy, Pa.	305.00
Attacked by bull—inj. chest, legs		Hit by cow—broke teeth	
Harold W. Hirsch, Lowville, N.Y.	1359.28	John R. Ward, Columbus, N.J.	912.45
Opening overhead door, slipped—inj. back		Crushed by cow—inj. knee	
Gregory V. Orton, Nunda, N.Y.	149.86	Kathryn Patchin, Keyport, N.J.	1277.75
Fell off horse—broke arm		Lost control of tractor—inj. chest	
Howard S. Warner, Norrville, N.Y.	2750.00	Jan M. Laurie, St. Albans, Vt.	302.00
Auto accident—loss of life		Slipping—broke ankle	
William D. Willard, Pittsford, N.Y.	458.98	Roger Dubois, Middlebury, Vt.	130.00
Snowmobile tipped over—broke hand		Slipped on ice—inj. shoulder	

Keep Your Policies Renewed

NORTH AMERICAN ACCIDENT INSURANCE COMPANY

(In New York State)

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ITHACA, NEW YORK



Left to right: Gary and Greg Van Slyke, Agway's Harold Barkewitz and Kenneth Van Slyke discuss latest Agway Dairy Feeding Profile.

"Harold doesn't work for Agway—he works for us."

Gary Van Slyke, Pike, N.Y.

Gary and Greg Van Slyke manage a 900-acre dairy farm near Pike, N.Y. in partnership with their father, Kenneth. They have a lot of confidence in Harold Barkewitz, an Agway Farm Enterprise Salesman.

"In six years," said Gary, "Harold helped us grow from a 54-cow herd into a profitable 250-cow operation. Our herd average climbed from 13,400 lbs. with 54 cows to 14,000 lbs. with 250. Following his advice has paid off."

"For example," added Greg, "we set up a group feeding program where cows are fed according to their productivity. As a result, feeding efficiency was greatly improved. Harold also advised us to store high-moisture corn, to cut down on the amount of grain we had to buy. Not the kind of recommendation you expect from a man who sells you feed."

"Thanks to Harold, we were one of the first farms to go on the Agway Dairy Feeding Profile," said Kenneth Van Slyke. "It tells us exactly how each cow is doing and shows how our operation stacks up against others of the same size."

"He has been so helpful that we don't think of him as a salesman at all," Gary concluded. "Harold doesn't work for Agway—he works for us."

You can get a man like Harold Barkewitz working for you to increase your production and profits. All it takes is a call to your nearby Agway store or representative.

Farm Enterprise Service

AGWAY

Greg Van Slyke, herd manager, checks Agway Breeding Control Center daily on each cow's breeding and health status.

The Van Slykes raise all their corn for silage and have been averaging 16 tons per acre.

Gary Van Slyke is responsible for the farm's crops—400 acres of corn and 230 acres of hay.



FEBRUARY 1972

American Agriculturist

and the
RURAL NEW YORKER



1972 HORSE JUDGING CONTEST

Guaranteed corn package:

Sutan + atrazine and Dyfonate for weeds and rootworms. Now... get weed and rootworm control that's so good performance is guaranteed!

Corn experts rate Sutan selective herbicide plus atrazine tops for control of grass and broadleaf weeds. Mix them in the soil as you disc before planting and get sure weed control, rain or shine.

Dyfonate soil insecticide controls all corn rootworms with one planter application. Dyfonate works for

sure even if you plant early and rootworm hatch is late. It's safe to use on all grain and silage corn for dairy or other animals.

See your authorized Stauffer supplier now for this low-cost package. Stauffer Chemical Company, Agricultural Chemical Division, New York City.

Sutan and Dyfonate from



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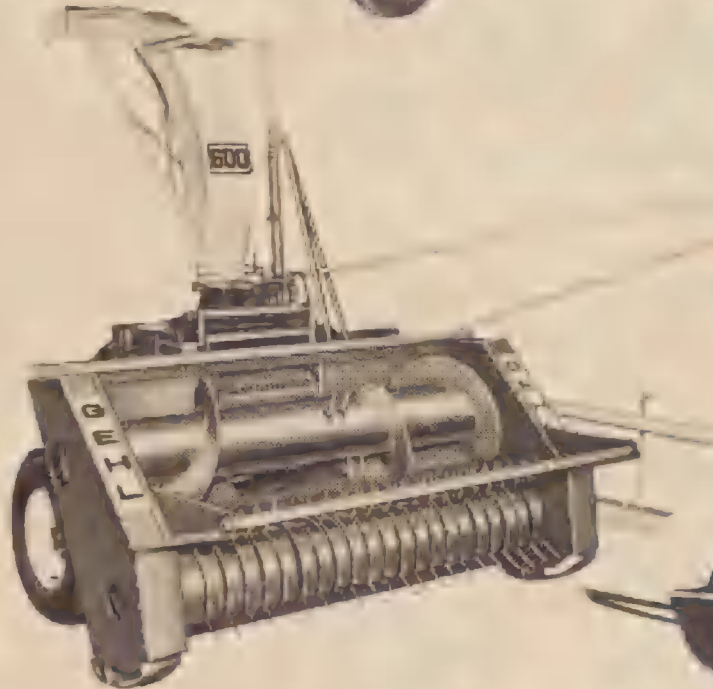
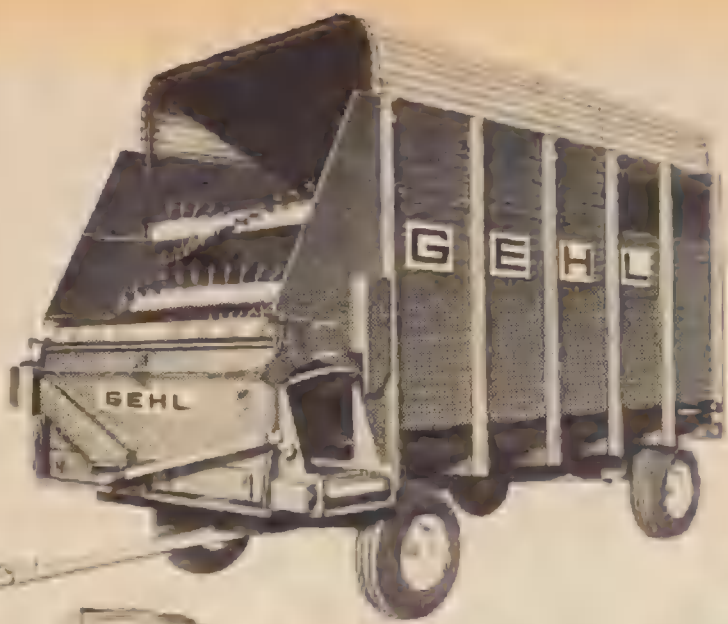
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OUR COVER

Roving photographer Doris Barker of Rochester, New York, shuttered the picture on this month's cover. It was taken near Newbury, Vermont in Orange County, east of Montpelier.

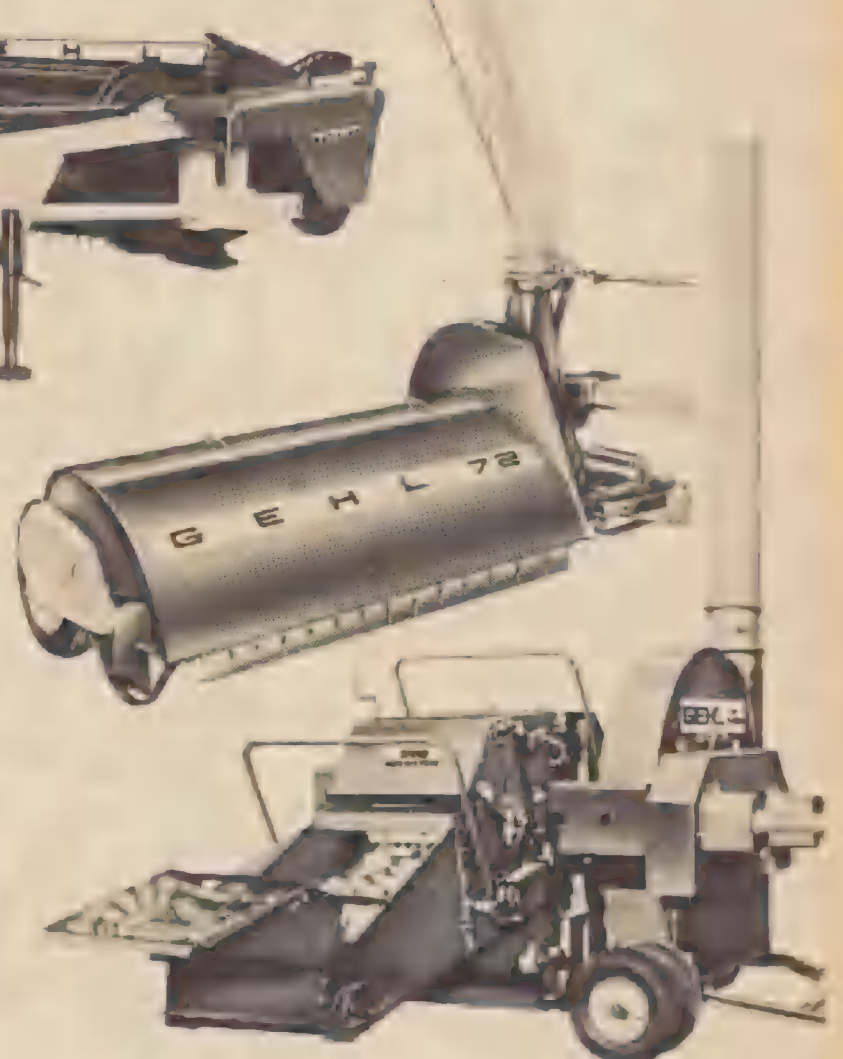


The Gehl savings plan

**Delivery NOW
for 20% down.**

No interest until June 1, 1972

Right now, your Gehl dealer is in the best position ever to provide you with the Gehl unit you need, and to save you money all year long. To begin with, during these winter pre-rush days, Gehl dealers are truly in a trading mood... ready to give the best allowance possible on your old equipment. Then, in addition, 20% down now (chances are your trade-in will satisfy this) brings a Gehl unit to you right away. Use it now! Yet there is no need to pay the balance until June 1, 1972 (August 1, 1972 for row crop attachments). Until those dates there's no interest involved. Now is the best time to seriously consider trading up to a new Gehl forage harvester, blower, recutter, mower-conditioner, or forage box. Look into the all-new snapper attachment and in-head electric knife grinder on the Gehl CB600 Chopper. Be ready for the field work that's ahead. See your Gehl dealer.



SEE THESE GEHL DEALERS FOR A DEMONSTRATION

CONNECTICUT

Torrington
Wallingford
Woodbury

MASSACHUSETTS

Agawam
Spencer
Sunderland

NEW HAMPSHIRE

Walpole

NEW JERSEY

Bordentown
Monroeville
Ringoes

SUSSEX

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NEW YORK

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Canastota
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Central Square
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Cuba
Delhi
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Klem Tractor Sales, Inc.
Roman R. Skibiski, Inc.

Pinnacleview Farm Equipment, Inc.

Applegate Farm Equipment
S. Johnson Hurff
D & R Equipment

Sussex Wldg. & Farm Equipment
Smith Tractor & Equipment, Inc.

C. N. Snyder & Sons, Inc.
Florida Implement Company, Inc.
M. C. & C. M. Drake, Inc.

Jay's Sales & Service, Inc.
Chenango Farm Supply
Coryn Farm Supply

Whites Farm Supply, Inc.

Robinson Farm Equipment Company, Inc.
J. C. Lucas & Sons, Inc.
Central Square Equipment Corp.

Clinton Tractor & Implement Company, Inc.
Cain's Tractor & Implement, Inc.
Ernest D. Witter

Delhi Farm Equipment, Inc.
Carl C. Fry, Inc.
H. W. Cook Farm Service, Inc.

Dryden Implement, Inc.
O'Meara Tractor, Inc.
Rickett's Farm Supply, Inc.

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Franklin
Ghent

Gouverneur
Gowanda

Hamlin
Hobart
Horseheads

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Lowville
Middleport

Montgomery
Munnsville
Nichols

North Java
Oneonta
Panama

Perry
Rexford
Richfield Springs

Salem
Schaghticoke
Sharon Springs

Sidney Center
Slate Hill
South New Berlin

Weedsport
Westfield

VERMONT

East Randolph
Hardwick
Middlebury

Poultney
Richmond
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Jeffersonville Garage
Foster Millard

Ridge Equipment Company, Inc.
Clarence H. Crist
Howard Landers

Thetga Farm Supply
Java Farm Supply, Inc.
West End Implement Company

Panama Farm Supply
Folk & Kelly
Droms Tractor & Implement Company

Leo M. Filburn
Salem Farm Supply, Inc.
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EDITORIALS

by GORDON CONKLIN



THE AHA RIDES AGAIN

Every publication receives hundreds of requests for free publicity every year, and *AMERICAN AGRICULTURIST* is no exception. One of those arriving at my office early in the year came from the American Heart Association.

A whole batch of "public service" advertisements were enclosed, most bearing advice on how to avoid heart attacks. Such phrases as these were prominent: "Eat more vegetable fats and fewer animal fats" . . . "eat foods low in animal fats and cholesterol."

The long-standing vendetta by the American Heart Association against animal fats reaches its peak each February . . . officially American Heart Month by act of Congress. The tragic fact is, though, that medical scientists and nutritionists are far from unanimous concerning the contention that animal fats plug the arteries and lead to early death. In fact, some prominent authorities seriously question the theory.

Even so, one of the most serious problems facing animal-based agriculture is that the AHA has convinced a lot of people to switch to vegetable fats. After all, so the argument goes, there may be something to the arguments against milk, butter, meats and eggs . . . so why take a chance? The AHA, thanks to the generosity of the American people, is in a far better financial position to promote its point of view than are the thousands of farmers who are hurt by the adverse publicity.

On behalf of every dairyman, poultryman and cattleman, I tossed the whole bloomin' package of AHA publicity into file 13!

DAIRY FARMERS' SEMINAR

College campuses, primarily because of parking problems, are not as suited as they once were for farm meetings. In response to this fact, the people in charge of the Massachusetts Dairy Farmers' Seminar are for the first time holding the 1972 meeting off the campus of the University of Massachusetts . . . at the Highpoint Motor Inn near Chicopee Falls. Dates are February 23 and 24.

Featured speakers include such folks as dairyman Lou Longo, economist Prof. David Call, dairy promotion leader Ed Peterson, and many more. Contact Prof. Stanley Gaunt, 301 Stockbridge Hall, Amherst, Massachusetts 01002 for more details.

Stan has worked hard over many years to set up annually a seminar program of interest to any northeastern dairyman. I've attended several, and heartily recommend the event to anyone interested in the dairy industry.

THE 20TH SPECIALTY

Farming is only one of many occupations in which specialization has intensified during the last couple of decades. The medical profession has also seen an enormous "information explosion" . . . and so some doctors have become heart specialists, some bone specialists, and so on. In fact, things have reached the point where we laymen tell many a joke about medical men who only work on the left nostril, but never the right one!

There have been lots of reasons for medical students to take the specialist, rather than generalist, route . . . higher income, more sophisticated equipment available, more professional prestige, and shorter (or at least more predictable) hours. But the accelerating trend toward

specialization has frustrated many a patient who really needed a neighborly general practitioner in his home town . . . instead of a remote specialist in some distant city who is so busy that an appointment must be made six months in advance. The "doctor shortage" has become a major topic of concern across many rural areas of the Northeast.

Dr. Allan Bruckheim of Harrison, New York, reports that a new specialist category was officially created not long ago . . . that of the family practice. He is a member of the board of directors of the NYS Academy of Family Physicians . . . an organization seeking to broaden the interest of medical students in "the 20th specialty," now being taught in many medical schools by a Department of Family Medicine.

As I get it, the doctors so trained will be **people doctors** . . . rather than eye doctors, nose doctors, or whatever. They will be thoroughly acquainted with latest medical technology across a broad spectrum, although they will consult with (or refer patients to) specialists when appropriate, of course.

Dr. Bruckheim reports that increasing numbers of students in medical colleges appear to be dedicated to the idea of family practice . . . as contrasted to specialization . . . than was once the case. Who knows . . . maybe we can look forward to having a higher percentage of doctors in future years that will be willing to practice in the small towns and cities of rural America!

I applaud the efforts of the medical profession along these lines, and at the same time must needle doctors a bit in terms of their subtle . . . but very effective . . . supply management. Frankly, I have long believed that fewer students are accepted by medical schools than are justified by patient numbers, and numbers of qualified applicants. Furthermore, some doctors have dragged their feet concerning steps to encourage the training of enough paramedics who could do so much in less technical health care, and at a much lower cost.

Hopefully, the emergence of the new specialist . . . the Family Practitioner . . . will help put more doctors where the people are, and might even narrow that widening gap in the ratio of numbers of doctors per thousand populace.

THE OTHER GUY

A letter from Mrs. Leonard Williams of Kendall, New York, tells of a terrible accident in her community . . . a corn picker claiming both legs and the hand of its operator. It was the old story of trying to unplug the machine while its pto was still engaged!

Over the years, I have seen my share of tragic accidents on the farm. Farming ranks high among occupations in terms of accidents per thousand people.

Much has been done by various groups, equipment manufacturers, and individuals to stem the tide, but a few tractors still overturn and crush their drivers . . . "gentle" bulls still stomp people to a pulp . . . slips and falls still put hundreds of farm folks in hospitals each year.

It can be a frustrating job to promote safety . . . each individual seems to automatically assume that accidents only happen to the other guy. Equipment and techniques that increase farm production seem to have a degree of glamour, but the topic of safety on the farm is notorious for turning people off.

Nevertheless, I think rural people owe much to the efforts of such organizations as the National Safety Council and the New York State Rural Safety Council. They're in the thankless business of saving us from ourselves . . . our own carelessness and thoughtless hurry . . . but preventing just one such accident like the one mentioned earlier makes the effort worthwhile.

For information on how to get involved, write: National Safety Council, 425 N. Michigan Avenue, Chicago, Illinois 60611.

OFF THE RIPOFF

It was about ten years ago that I visited a northeastern university where the campus store had just instituted a new policy. Shoplifting by students had reached the level of \$40,000 worth of merchandise annually . . . so turnstiles were established at the entrances; all containers and coats capable of hiding anything had to be left in racks **outside** the merchandise-stocked area.

I remember being deeply troubled then that a growing minority of college students had chosen to approach life as thieves. Some, I'm sure, tried to justify their selfish motives with the Robin Hood rationalization that they were stealing from the "rich" (the Establishment) and giving to the "poor" (themselves).

Only recently, the manager of the Faculty Student Association Bookstore at Cortland State University College (at Cortland, New York) reported that theft losses in the bookstore and food service centers there in 1970 were "in the neighborhood of \$50,000 and increasing in 1971." However, even collegians are getting fed up with their larcenous fellow students . . . because the "ripping off" isn't just from the stores, but also involves the possessions of many students.

A generation reared in the lap of luxury has found it difficult to understand why some of us mossbacks get so uptight when property is stolen or destroyed. After all, our youngsters argue, somebody always fixes things up . . . the government, the insurance company, or square old Pop. Slowly, though, it dawns on each new generation that there is no magic creator of goodies, and that they will have to provide the funds distributed by the government, and by the insurance companies . . . and eventually they even become the old guy who gets the bills.

Perhaps even more important, it gradually becomes apparent to most people on the road to maturity that ignoring the property rights of others is the path to destruction of security for anyone's property. When I sow the seeds of approval or indifference concerning the stealing of my neighbor's possessions, I reap the whirlwinds of a plundered closet in my own room.

At Cortland SUC, the faculty and an overwhelming majority of students are reported to be lowering the boom on the thieves in their midst . . . a refreshing change in direction from the tear-down-the-society attitude that has been so prevalent in the news from college campuses in recent years. When the day comes that it is **your own** hi-fi set that is stolen, then the admonition "thou shalt not steal" becomes suddenly relevant.

Welcome, folks, to the Establishment!

THAT REMINDS ME . . .

A relative from Texas was visiting a Maine dairyman.

The resident of the Lone Star State was noticeably unimpressed by the small acreage of northeastern farms, including his host's.

"Why," he boomed, "I can get in my car and drive all day before reaching the other side of my ranch!"

The dairy farmer clucked sympathetically. "Know just how you feel . . . had a car like that once myself!"

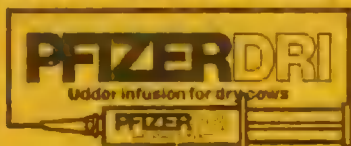
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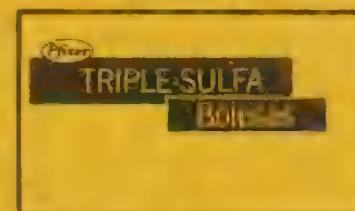
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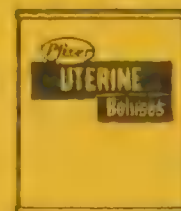
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MORE FOR GROWTH AND HEALTH

horse pasture tips

by Bill Pardee



BLUEGRASS is the basic forage in most horse pastures. But alfalfa, brome grass, timothy, fescue and trefoil can boost your pasture feed production. It's your choice, depending on your own situation.

Here's a rundown on horse pasture ideas and management tips drawn from research and experience across the Northeast.

For background, I've leaned heavily on agronomists Bob Seaney and Madison Wright, Cornell, and John Baylor from Penn State.

Different

Horses differ from cows in lots of ways besides looks. First, horses are primarily athletes. You're interested in their performance in walking, running, jumping and otherwise moving around, whereas you don't care how fast your best cow can trot a mile and a half . . . unless you're trying to get her back into the pasture!

Second, horses are grass eaters, close croppers that are picky about what they eat. They'll spot-graze good-tasting pasture plants into the ground, while leaving less tasty types completely alone. Cows do this some, but they're not nearly so choosy as horses.

Purposes of horse pastures also differ. For many horse owners, the pasture is a "place" rather than a "crop." It's the place to keep the horses, where they can exercise, get some sun, look attractive and maybe find a little grass. And these are important reasons, since we're dealing with athletes primarily grown for fun. This is probably all you can accomplish if you've less than one acre available per horse, so you should plan your pasture as a "place," make it attractive and safe for your horses, and plan to buy your feed.

Farmers

But if you're a farmer, like most readers of this column, you have land available and can gain considerable feed by treating your pasture both as a "crop" and a "place."

Plantings differ, depending on which route you choose to go. If you are land-short and looking primarily for an exercise lot, set your pasture up accordingly. Kentucky bluegrass resists grazing and trampling and makes an attractive and firm surface for running.

Horses like bluegrass, and they'll

keep it well gnawed. Tall fescue isn't as palatable, but it's a tougher grass you can use to fill in along fences, water troughs or feed bunks to take extra wear.

Pasture as a Crop

Probably bluegrass should be built into most horse pastures as a basic ingredient. Still, bluegrass has its weaknesses. It's low in yield compared with tall-growing forage species, and it goes dormant under mid-summer heat and drought. Blue-

SELECTING HORSE HAY

High quality hay makes first-rate horse feed. When buying or selecting hay for your horses, break open sample bales and look closely for these quality factors:

1. *Earliness of Cut.* If it's truly early-cut legume hay, alfalfa or clover, you should find dried flower buds, but few fully-developed flowers. The fewer flowers, the better. If the hay is loaded with dried flowers, it was cut later than ideal. Such hay is lower in protein and digestibility than bud-stage stuff. If you find alfalfa seed pods, or can rub seeds from clover blossoms or grass heads, the hay was cut too late, so steer away from it unless it's the best you can find.

2. *Lots of leaves.* This shows good hay-making practice, and generally indicates that the hay wasn't damaged by rain. Leaves are high in protein, calcium, phosphorus.

3. *Green color.* Another indication of early cutting and good curing practices. Green hay is an indicator of hay high in Vitamin A, and it rarely contains must or mold.

4. *Weeds, sticks, stubble or other foreign material.* Horses are picky about such stuff.

5. *Do not feed hay* that is dusty, musty or moldy. Stick your nose down in the hay and take a good whiff. Dust or molds frequently stir up respiratory and digestive disturbances in horses. Be sure the hay has a fresh, pleasant odor.

High quality legume or legume-grass hays generally contain more protein and minerals than straight grass hay. But either type can make good feed if it meets the criteria above.

grass puts most of its yield into May and June and the fall months, when days are cooler and moisture is more plentiful.

Other grasses and legumes yield more and fit well into horse pastures. Alfalfa is the top yielder, and ladino clover can also serve, as can timothy, brome grass and orchardgrass. All can boost the yielding ability of pastures, but require more management than bluegrass.

Most important, alfalfa and tall-growing grasses like timothy, brome and orchardgrass can't take continuous grazing. They do best under a rotation sequence, with the pasture divided into 4-6 paddocks. Horses should be shifted every 7-10 days, permitting 5-6 weeks of regrowth in each paddock before regrazing.

Personalities

In setting these up, you can develop pastures with different personalities . . . say one with bluegrass and ladino clover for spring and fall grazing, others with alfalfa and timothy or brome for grazing in early June, mid-summer and early fall, and still others with timothy and birdsfoot trefoil for late June and August pasture.

If space or fencing is limited, you can sow parts of one pasture with different species. Use bluegrass as your base, sow fescue in heavy-wear areas, ladino and orchardgrass in moist areas, timothy and trefoil in heavy or poorly-drained soils, and brome grass in well-drained or droughty areas. You could add some alfalfa with the brome, but horses will generally pick it out and graze it heavily, killing it out in short order.

Birdsfoot

Birdsfoot trefoil fills a special role on poorly-drained soils. Horses usually aren't enthusiastic about trefoil, and will eat alfalfa and grasses first, but by mid-summer (when grasses are dormant) they'll eat trefoil fine and do well on it. The Empire type survives best under the close cropping given by horses.

Fertilizer management can also help spread your grazing through the season. Forty to fifty pounds of nitrogen applied in late fall or early spring before your grass greens up can bring growth on earlier. But don't hit all your acreage unless you're prepared to take the extra off as hay!

Some horsemen leave some bluegrass unfertilized until late May or early June, then give it a 40-50 pound shot of N per acre . . . providing there's moisture present. This can extend your grass growth further into the summer. Likewise, 40-50 pounds put on in early fall will keep your grass productive later in the season.

We're not suggesting hitting one planting of bluegrass 3 times with N, but rather the treating of several areas at different times to extend the grazing period. Bluegrass will respond to N, but not enough to pay for more than 40-60 pounds per season. Also, when thinking of late spring or early fall applications, keep your nitrogen in the bag if conditions are dry and your grasses dormant. You need growing grass to use and pay for nitrogen.

(Continued on page 8)

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FORD TRACTOR



(Continued from page 6)

Tall growers like brome grass or orchardgrass show more response, and can benefit from two applications of 50 pounds each, one in early spring, and another after the first or second grazing periods.

Legumes like alfalfa and clover require plentiful phosphorus and potassium. So do heavily-grazed grasses. Best bet is to apply at least 50 pounds of each per year. To determine best rates, have your soil tested.

The same is true of lime. Most pastures need it, particularly if you plan to grow alfalfa. Check with your county agent for soil containers and other soil test information.

Keeping down weeds is a must in any pasture program. Your mower is your best and usually your cheapest weed-control tool. Rotary mowers are most convenient, but sickle bar mowers do as well. For best results, try to get over your pastures twice, once in late June or early July, another in late August.

The earlier cutting will remove most spring-growing weeds before they set seed, and also cut off mature uneaten forage to make way for tastier regrowth. The late summer cut removes late-flowering perennial weeds, and clips forage species again to stimulate fall growth.

When you mow, clip close, say 1½ to 2". Horses won't shove their soft noses down into a tall stiff stubble so they're likely to miss much

fresh regrowth if you cut too high. Broadleaf weeds creep into horse pastures quickly, particularly weeds that horses won't eat. But 2,4-D does a good job on most broadleaves. Best time to apply is in spring to clobber dandelions and yellow rocket, then again after first grazing, if later-starting broadleaves are on the move.

This fits well on grass pastures, but 2,4-D kills legumes, so don't use this spray on alfalfa or trefoil. If you put together a good program of clipping, high fertility to stimulate grass growth, and 2,4-D spray where suitable, you can clean up your pasture and keep it essentially weed-free.

Spreading pasture droppings is also good practice, and helps to reduce ungrazed spots. This also lets the

sun and wind dry the manure and kill off internal horse parasites.

Peg-tooth harrows, links or chains pulled behind the tractor or mower can all give sufficient spread to the manure without tearing up your turf.

Questions and Answers

Several common questions we get from horsemen include the following.

Should we tear up what we've got (bluegrass and weeds) and start again?

Depends on your purpose. If your primary goal is an attractive place for your horse to run and exercise, take the low-cost route . . . mow or spray out the weeds, and fertilize the bluegrass. With less than one acre per horse, choose this route.

However, if you've more acreage available, and want to grow a substantial portion of your horse's feed, then it will probably pay to tear up part or all of your pasture, prepare a good seed-bed and sow a mixture of high-yielders like alfalfa and grass or trefoil and grass. Choose brome, timothy or orchardgrass with alfalfa . . . timothy with trefoil.

Should I include bluegrass in alfalfa-grass mixtures?

Some agronomists suggest adding bluegrass seed to any horse mixture. Others note that bluegrass comes in fast anyway as stands deplete, so there's no need to help it along. Still, chances are a few pounds of bluegrass seed in your mixture won't hurt anything, and may fill in a few holes.

But don't carry that thinking too far. We've seen some horse pasture mixes that include 10-20 species based on the theory that they'll fight it out and the best-adapted species will survive. What happens, though, is that fast starters crowd out longer-lived species, then die out themselves and your final stand is weeds!

Agronomists agree that simple mixtures are best. One legume and one or two grass species mixed together are plenty, and will give you best performance.

How about grazing horses with my young stock and dry cows?

Good idea, so long as the pasture is safe for horses' legs. Cows and horses graze differently, and cows tend to eat forage off more evenly though not as close as horses. Together you'll get more uniform grazing of the pasture. And the greater area covered will spread your horse droppings over a wider area, lessening risk of internal parasites. While horses and cows won't graze around their own species' droppings, they don't worry about each other's. This again gives you more even grazing of the field.

There's lots of lore about horse pastures, and what you do depends on how much of a showplace you like your pasture to be. For detailed information on your soils, adapted species, seeding rates, and fertilization suggestions specific for your field, check with your county Extension agent.

Horses evolved to their present form on grasslands, and grass is the natural feed. As someone once said, your horse's head is a "natural grass cutter on a flexible shaft." Horses can do well on pasture if you just give them and the pasture a bit of help!

American Agriculturist, February, 1971



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ALL-AMERICA VEGETABLES

Flavorful, productive, easy-to-grow . . . all describe the three new All-America Selection vegetables for 1972.

The winners are Victory cucumber, which is a productive, disease-resistant type, and two modern red cabbages, Ruby Ball, an early variety, and Red Head, a later type.

Being resistant to disease makes a difference in cucumbers, since they are prone to many troubles. And disease resistance means not only that spraying is less important, which is a boon to home gardeners, but that productivity is greater, since diseases do not tap the plant's strength.

Tolerant

Victory . . . a bronze medal winner . . . is tolerant to both powdery and downy mildew, which often turn cucumber plants white during the growing season. It is also tolerant to scab and mosaic. In addition, it has considerable tolerance to angular leaf spot and to anthracnose, both of which can cause production problems.

But the bonus points of Victory don't stop with just disease resistance. It's a female (or gynoeceious) hybrid cucumber, which means it has a preponderance of female flowers. This, of course, contributes to its heavy yield.

Victory cucumber has an excellent flavor, is crisp and firm and has a fine dark green color. Its rating in size and shape for a slicing cucumber is tops.

Cabbages

Ruby Ball, the earlier of the two new red cabbages, was awarded a gold medal. It's an F1 hybrid and extremely uniform. It is ball-shaped, has a short core, is solid, and has a sweet flavor. It produces 5-pound heads.

Ruby Ball's companion, red cabbage Red Head, won an All-America Selections bronze medal. It does an excellent job a bit later in the season than Ruby Ball.

Red Head is also an F1 hybrid, and has fine uniformity, an excellent flavor, a nice compact head, and a dark red color.

Both Red Head and Ruby Ball are excellent raw in salads, and are considered a delicacy as a cooked vegetable.

WEED BLACKOUT

OVER the years, gardeners have learned to cut down on some of the "stoop, bend, squat or sit" of gardening by using various organic mulches to help control weeds. These naturally-occurring mulches . . . straw, hay, woodchips, etc. . . also help to maintain an even soil temperature, conserve soil moisture, and make plantings more attractive.

A fairly new, but very popular "man-made" mulching material is plastic. Various types, widths and

thicknesses of polyethylene sheet plastics are available for the home gardener.

Other man-made mulches, such as paper, foil, asphalt and liquid plastics, have also entered the picture but most have wider use in commercial production than in the home garden.

Sheet Plastic mulches come in several colors, but black is preferable because it allows almost no light to penetrate. Consequently, weed seeds underneath it either fail to germinate at all, or if they do sprout they don't amount to much. While rainfall is prevented from reaching the ground directly, it enters the soil through openings where the crop plants are growing. A shallow depression where the

plant stem emerges from the ground also helps to collect rainfall and send it down to the root system.

Contrary to what you might think, a black polyethylene sheet is not hot underneath, reports Dr. T. R. Flanagan, Extension agronomist at the University of Vermont. Even though the plastic warms up in the bright sunlight, most of this heat is lost to the atmosphere above it. The soil below is protected by the insulation effects of the trapped air under the film. Soil temperatures remain moderate.

Dr. Flanagan has a word of caution for plastic mulch users. Unless the plastic film is anchored with stones or soil heaped along the edges, it's apt to blow away. If you don't like the looks of the plastic,

place a layer of chipped bark over it. The bark acts as a mulch as well as a cover, and helps keep the plastic in place.

SEED-TAPE

In 1970, the Ferry-Morse Seed Company introduced Seed-Tape . . . a device where seeds are included within a tape which goes directly into the ground. The company reports that gardeners responded favorably to the idea, and that there are now 25 varieties of flowers and vegetables available in Seed-Tape form.

It's available at many local garden supply stores, as well as some supermarkets.

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Doc Mettler Comments on:

feeding horses

DESPITE what the groundhog sees when he pokes his head out of his burrow on Groundhog Day, the first bright sunny day in February is going to start a lot of people thinking of spring. For the horseman who wants his mount ready for the season's first trail ride, or has a mare bred to foal in May, it is not too early to think of spring.

Good horse care is not a seasonal thing, but during the winter months we become a little lax, look at a thick hair coat and think "old Dan is fat" . . . or worse yet, don't pay any attention to a "hay belly" or excess fat on any of our horses. Americans tend to do the same thing to their horses that they do to themselves . . . kill them with too much food, or too much of the wrong kind of food.

This idea was expressed by nearly every speaker at a recent Equine Nutrition Conference in Syracuse. Sponsored by the New York State Veterinary Medical Society, Equine Research Program of Cornell University, this conference was attended by horsemen, feed people and veterinarians from all over the Northeast.

Requirements

Dr. H. F. Hintz, nutrition expert from the Cornell Equine Research Program, gave an excellent paper on the new equine nutritional requirements as they will be published soon. He mentioned the falsity of some of the "facts" we had all been taught for years about feeding horses . . . some of which were based on bovine or experimental rat requirements, and some said to be correct because our grandfathers believed them.

On the other hand, it was brought out by Don Millar, manager of Hanover Shoe Farm, and Professor Don Balch, manager of the University of Vermont Morgan Farm, that if horses have good hay and good oats, along with good pasture in the summer, they do not need too much more.

Dr. R. H. Pierson, veterinarian from White Devon Farm, and Dr. E. H. Fallon, veterinary practitioner from Kentucky, gave hints on how they felt breeding stock and growing

foals should be handled.

This was all summed up by Professor R. M. Jordan of the University of Minnesota, who chaired the afternoon session. Chairman of the excellent morning program was Dr. E. N. Coye of Lyons, New York.

Specific

The one question that at first I felt no one seemed to answer to the satisfaction of horsemen present, went sort of like this: "I have a hunter gelding who works hard one day a week, moderately hard two days a week, a little two days a week, and is rested two days a week. What and how much should I feed him?"

This was answered in the papers presented, but in such a way that one had to figure out the specific answer himself. A veterinarian is asked this sort of question almost daily, and if he can come up with a satisfactory answer, the rest of the horse-owner's problems are minor.

The difficulty is that no two horses are exactly alike in their utilization of feed or their energy requirements. If your veterinarian gives you a general answer, you have to use a little give and take . . . and horse sense . . . to apply it to your specific horse.

In most cases, your own veterinarian, familiar with your particular horse, will do a better job of helping you than a nutrition expert who can answer you about only an average horse. Your veterinarian, of course, must first have learned from the experts all he can about what the average horse needs.

Before we get down to specifics, let's talk about the rule of thumb that Dr. Hintz mentioned . . . the basic maintenance for a horse at rest. A 1000-pound horse requires 8.6 pounds of total digestible nutrients (TDN) daily. Good hay has about 50 percent of its weight as TDN, so 18 pounds of hay per day should maintain this horse. Another way of putting this is 2 pounds of hay per 100 pounds of horse.

As work load increases, the daily demand for TDN goes up to 10.9 pounds for light work, 14.3 pounds for heavy work. A horse at heavy

work does not have time to eat 30 pounds of good hay a day, so we have to increase his TDN supply by adding grain.

Weigh

Before we go any further . . . we all grew up talking about feeding horses quarts of grain and the experts talk in pounds. A quart of oats weighs only half as much as a quart of corn, and oats from one source may weigh more per quart than that from another. So, if you are to know what you are feeding your horse, weigh a quart of oats, corn or whatever, and weigh from time to time so you can figure out in pounds how much you are feeding.

Weigh hay, also, and pay attention to hay quality. When we talk of good-quality hay we mean early-cut bright timothy, alfalfa, or mixtures of these grown on good soil. The grain we use to increase the TDN for a working horse does not need to be oats. More than 50 percent of the grain can be corn.

Commercial

Most grain companies have a good basic horse ration. The label on these commercial mixtures tells you how much TDN and protein they supply. A typical basic ration would contain 13 percent protein, 4 percent fat, and 9 percent fiber with 75 percent TDN. Its content would be something like this:

Crimped oats	970 pounds
Cracked corn	500 pounds
Wheat bran	150 pounds
Linseed oil meal	200 pounds
Molasses	150 pounds
Salt	20 pounds
Dicalcium phosphate	10 pounds
Riboflavin	15 mg per pound
Vitamin A	1000 I.U. per pound

Don't overestimate the work your horse is doing, and if you are not sure, feed him on the light side. The hunter in question should be figured at light work. One or two days a week of hard trail riding and the rest of the week at pasture is still only light work.

Horses in training for racing are about the only ones worked truly hard, unless perhaps we consider horses in training seven days a week for a competitive trail ride.

A horse that loses weight can be increased slowly on feed to the owner's discretion easier than he can have extra body weight removed . . . and far easier than he can be treated for a case of founder or laminitis he's gotten because of over-feeding.

Nursing mares require as much TDN as a hard-working horse, but don't over-feed them when they are pregnant. They need a little more TDN during the last three months of pregnancy, but don't over-feed, and avoid quick changes.

As an example, a pregnant mare getting moderate exercise needs little more than the basic requirements of 8.6 pounds of TDN per 1000 pounds of weight . . . let's say 20 pounds of good hay per day.

As the time of foaling approaches, replace some of the hay with grain so that by the week before foaling she is getting 12 pounds of hay (50% of 12=6 lbs. of TDN) and 8 pounds of grain (75% of 8=6 lbs. TDN), which gives you a total of 12 pounds of TDN.

During lactation, she needs 14.1 pounds of TDN daily, so after foaling increase her gradually to 12 pounds of grain (75% of 12=9 lbs. TDN) and leave the hay the same, 12 pounds (6 lbs. TDN), giving her 15 pounds of TDN.

If she is an old mare and cannot eat that much hay, increase grain slowly to 16 pounds (12 lbs. TDN) and give 4 to 6 pounds of hay (2-3 TDN) . . . and you have the 15 pounds of TDN she needs.

Remember, I am talking average horses and average good hay. Substitute alfalfa for timothy and you can feed less hay for the same TDN. My personal preference for feeding pregnant and lactating mares is to use one of the pelleted ration feeds with just enough hay to keep them from chewing the barn down. This keeps down the tendency to become "hay bellied," and is a well-balanced ration. For these, follow the directions on the label, and do be careful not to over-feed and get your mare too fat.

Ration

If only poor-quality hay is available, feed some of this complete pelleted ration with it. This is a good combination, since the poor hay (coarse fiber, not moldy) gives something for the horse to chew on, and in winter gives him the fiber he needs to generate heat by digestion. During extreme cold weather, increase hay and during hot weather decrease the amount of hay. It probably is a good rule to increase the quality when we decrease the amount, and vice versa.

Growing horses, and mares during the last three months of pregnancy, need more protein. The nursing foal can get a lot of his protein from milk, but still his grain should be higher protein and his hay higher quality. We will talk more about foals in a spring issue.

One reason to feed a commercial horse feed is that it usually contains the vitamins and minerals needed. I will not go into mineral requirement except to say that a ratio of 1:1 or no more than 1:2 calcium to phosphorus was mentioned as being required.

Advice

If you are feeding oats and hay (or pasture), and feel you need a mineral mixture, just be sure you buy one for horses, not cows. There are many of these on the market, and it is not always the expensive one that is best. Your veterinarian is a good person to ask for advice about whether your particular horse needs a mineral mixture and where you can buy it if he does. Horses should always have a salt block available. To completely cover even the high points of an equine nutrition program, we should talk about feeding of foals, weaning foals, feeding yearlings, and about pasture. Things causing easy or hard keepers such as teeth, parasites and nervous use of energy should also be discussed. These subjects will be covered in later issues.

In the meantime, if you have some nervous energy to work off before spring, use some of it on the AMERICAN AGRICULTURIST horse judging contest, elsewhere in this issue.

American Agriculturist, February, 1972



CHANGE AND TAXES

Extension is not the only branch of the USDA to feel pressure for change. I was glad to retire from the Soil Conservation Service last May after 36 years . . . 26 of them as District Conservationist in Seneca County. The pressure to work more and more with the 90 percent of the population on 10 percent of the land was too much for this old farmer. Extension's job of educating those masses is problem enough, but for an action agency to try to get jobs done is slow work!

As for taxes, you have my support to do all you can to bring some old-fashioned responsibility into the feelings of all of us. Nothing has disgusted me more than to hear at a planning board, or other local government meeting, "Let's get it done. It will only cost us one-sixth . . . the state pays some, and the federal government the rest." — *Emil Kahabka, Seneca Falls, New York.*

DHIA SITUATION

We noted your recent editorial on DHIA problems and must comment that this came as a fresh breeze through a haze of confusion and misconceptions relating to the Production Herd Testing Programs. As a manufacturer of the Milk-o-Meter and TeSa Butterfat Test Equipment for the official Production Herd Testing Programs, this is a matter close to our interests. This is not a New York problem, this is a national problem . . . with declining interest and membership almost universal.

Private testing organizations are springing up all over the country, particularly in California and Florida and certainly there must be a number of reasons for this. In talking to the farmer generally these are economics, lack of service, and a host of other complaints. Might I suggest that any commercial concern would look first to filling the needs of his customer at a price the customer can afford, otherwise he wouldn't stay in business.

As long as the federal and state agencies determine what they want in terms of herd testing programs, rather than what the dairy farmer wants, I am afraid we are faced with a continuing decline in official herd testing activities. — *B. Jaquith, president of Technical Industries, Inc., Fort Lauderdale, Florida.*

HIRING YOUTH

In a recent editorial, you asked for experiences of those employing youth on farms.

For over 20 years, we have hired only "youth" to help operate our farm . . . "Jalco," in Woodstock, Vermont . . . where we milk 40 registered Holsteins, put up all the hay and silage for about 80 head of stock.

We have employed boys from the city, college boys, country boys, and

secondary-school boys with rewarding results. Almost without exception, the boys have drifted back over the years, from the varied careers they have pursued, enriching our lives with theirs and sharing their joys and sorrows.

The ingredients for success as employers in this family farm operation have included good pay, working with them (not just supervising), sharing the "dirty" jobs and the "fun" jobs. Teaching the boys how to operate machines, and being more than safety-conscious, has been necessary. We do provide insurance, too.

We give them a home with good food (including snacks), hot showers, good beds, planned time off, and unplanned time off after an especially tough day. Rewards, in other words.

When occasional need for a vehicle arises, the privilege of using ours is extended. Very seldom has it been abused. Of course, we have had great need for a sense of humor!

For us, the boys we have employed over the years have rewarded us with their friendship . . . and our herd has stood at the top of the Vermont DHIA for production for several years. — *Albert and Jean Conklin, Woodstock, Vermont.*

P. S. We learned a lot from our own three boys!

SUCCESSFUL RAILROAD

I want to bring to your attention a matter of local interest. If you will refer to the May, 1963 number of *The Rural New Yorker* (page 22), you will find an article that I authored, "A New Life Came To An Old Rural Railroad." This year, that railroad carried 40,874 passengers from Arcade to Curriers and return on its scheduled steam train and chartered facilities.

Since the start of this program in 1963, the railroad has carried in excess of 365,000 paid passengers. Passenger revenue this year was in excess of \$61,000 and, in addition, the railroad received another \$21,000 in gross revenues from its concessions at the local railroad station and on the trains. This was from food, beverages and souvenir items.

When the article was written in 1963, the Borden Company was the railroad's largest source of freight revenue. Borden's has left this area completely during the past year. Another industry has bought their plant facilities. There is hope of substantial future revenue if this new industry succeeds.

The other basic freight customers mentioned in my article of 1963 continue to produce substantial freight revenues. The Arcade & Attica is really a very solvent railroad, and has paid dividends as high as \$10 per share in the last few years. — *J. Milford Newman, Arcade, New York.*



"I found a great job at the farm co-op. . . \$2.00 an hour, free health insurance, and paid holidays. You start Monday!"

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We farmers are a handy lot . . . taking care of the land, the machinery, the house and the barns. But we also know that some things must be left to the experts. People like our doctor when we're sick or our Farm Family agent when we need protection. Our Farm Family man is a real "Pro" when it comes to knowing farm needs . . . he was a farmer himself like most of their agents. Back this with the company he represents and you have an unbeatable combination. If you want the right protection program for your farm, get in touch with your Farm Family man . . . he's the right man for the job.



OUR NAME DESCRIBES OUR FIRST CONCERN

MANAGEMENT: THE GAME OF LIFE

by Robert Suter*

MANAGEMENT is sometimes defined as the skillful or judicious use of certain means to bring about or accomplish a certain end or ends. What are the means? On the farm, the means are resources... land, labor, and capital, along with managerial resourcefulness. The ends are a given amount of income or satisfaction.

The skillful manager is one who conducts his affairs with economy, taking whatever resources he has and making them go as far as possible toward achieving those goals and objectives he most desires. These definitions apply to one's business and financial affairs, but they also apply to one's personal and family situation.

Difference

What are the differences between successful and unsuccessful management?

1. A successful manager is willing to solve problems. He enjoys making decisions. He is willing to accept responsibility.

This is not management alone. It is instead the challenge of obtaining what one wants out of life. It is the desire to accomplish. Whether you work for yourself or for some company, it is to a certain extent being your own boss; it is that feeling of independence.

To the skillful manager, a problem... any problem... is a challenge. Yet fewer persons today are willing to go out of their way to examine a new idea, to figure out or develop some new technology, or do something different. Both in total and percentage-wise, there are fewer of us who are willing to accept risk.

Yet the skillful manager at times purposely seeks areas of high risk. For he realizes that the highest rewards... both in terms of monetary returns and in terms of satisfactions... are related to risk. As risk increases, so do the rewards... if you win!

The unsuccessful manager is not inclined to solve problems. Oftentimes he will not willingly accept risk. Risk is, of course, associated with the dubious distinction of going broke in a hurry!

The real difference here between successful and unsuccessful managers perhaps is not very great. The difference can be summed in one word... attitude.

2. The successful manager has a specific set of goals and objectives.

These are often related to his farm business, his work and/or his family activities. The successful manager knows what he wants, he knows where he is going, and he generally knows why. For the human being is not happy unless he is functioning to achieve or to accomplish.

Goals and objectives are many and varied, tangible and intangible, short-run and long-run. Some of them are income-generating or business-like; others include non-monetary sources of satisfaction.

The successful manager has a set of goals and objectives that have been intelligently conceived. As a result, he often exhibits a sense of urgency about accomplishment. He's on the move, and he lives in an exciting environment.

Goals, to the unsuccessful manager, are in many cases non-existent. He knows not what he wants. He may already be satisfied, income is sufficient, and incentive is lacking. The unsuccessful manager thus limits his horizons... both in terms of interest and in terms of activity. As a result, life is dull and unexciting.

And yet again, the difference between the successful and unsuccessful manager is not great. The difference is due to whether you have really thought about what you want out of life.

3. The successful manager takes time to think.

He takes the time to purposefully think about himself, his farm business, and his day-to-day activities. The most difficult job, of course, is to study a problem which you yourself helped create. You can always judge the other fellow's troubles, but what about those you created yourself?

The skilled manager takes time out to study himself and his problems and to put them in perspective. He studies \$100 problems, \$1,000 problems, and \$100,000 problems... and allocates time to each of them relative to their true importance.

The unsuccessful manager mistakes activity for accomplishment. He's a goer instead of a doer; sometimes he's only a wheel-spinner.

4. The successful manager thinks in terms of alternatives.

Today, there is no one best solution to many of our problems. In fact, the Game of Life is the science of alternatives. The successful manager looks at a problem, a proposed course of action, and asks himself, "What are the possibilities?" "Is this way the only way?" "Is there more than one solution?" "Just what are my alternatives?"

The successful manager also tends to develop alternatives. He is oftentimes a creative individual in that he purposefully creates alternative opportunities.

The unsuccessful manager looks, but does not see. He listens, but does not hear. He sometimes thinks, but does not always analyze... and even then he does not act. The unsuccessful manager is not inclined to be creative.

5. The successful manager attaches priorities to each of his problems, to each of his jobs.

He knows which goal is most desired, which problem is most important, and which job should be done first. By placing a value on each, the successful manager develops his priority system.

He estimates the cost of each alternative, in terms of dollars or sacrifice. He predicts the results that can be achieved from each course of action, again in terms of dollars or satisfaction. He then compares the additional costs with the additional returns that are obtainable. This is the marginal concept in economics.

The unsuccessful manager sees everything all at once. He is not capable of thinking about more than one problem at one time. Nor is he capable of considering more than one solution at one time. He is confused by the multiplicity of problems, and by the complexity of problem-solving. As a result, he often has to be told what to do.

6. The successful manager is willing to work.

He has the ambition, the drive, the enthusiasm, and the aggressiveness to do the job, and do it well. He may be technically competent, he may be very intelligent, and he may be a thinker. At the same time, he is not afraid to work with his hands if and when it's necessary.

Today, there is more and more desire on the part of society to be critical of our established traditions and institutions. Students have the desire to direct, to make recommendations... in fact, to make decisions. Yet they will but reluctantly take time out beforehand to study the facts. This is work; it's drudgery.

There are on our campuses today some of the most capable kids in the world. At the same time, the more vocal students are not always the more intelligent ones. Their comments regarding the real world are often painfully irrelevant. And their confidence often bears no exact relationship to their willingness to analyze details.

One of our greatest tasks is to realize that before one forms an opinion, he should take time out to study the data. This is work, but it's part of the responsibility of management.

7. The successful manager knows how to challenge other persons.

He likes people. He likes to work with people. He can communicate with people. This requires tremendous amounts of time and patience.

The skillful manager is also honest. He's ethical. He recognizes that there is no substitute for honesty, integrity and moral character.

These personality characteristics are still a large part of our society. And they will pay off in the future just as much, if not more, than in the past.

8. The successful manager often seeks the advice of a critic or partner.

The most successful farm businesses mostly include those where there are two persons working together... a father-son, two brothers, perhaps a husband-wife operation as partners.

Today's farm is more of a business than it ever was; today's farm operator must have better records, credit-wise, tax-wise, financially and legally... than ever before. Farmers need help with their farm record enterprise accounts, credit statements, cash flow and budget analyses. Here is a challenging managerial role for the farm wife.

Furthermore, most farmers have at one time or another, the need for a bona fide critic with whom they can brainstorm a new idea, think through realistically, and double-check the calculations. When the farm wife assumes this role, the farm operator has financial, legal, and other advantages.

In fact, the wife as a partner is the most valuable (and the least costly) consultant one can have. It is time more of us recognize the role our wives can play in business matters.

9. The successful manager can foresee problems in advance.

Not problems, exactly, but unique opportunities. He says, "Someday I hope to... Someday I'm going to... Someday I'll fix that... and when do... etc., etc." In other words, he anticipates.

The unsuccessful manager looks at this fellow and says, "Boy, he lucky!" But luck consists of two things... advance planning, and an unanticipated opportunity.

The unsuccessful manager doesn't think about the future. And, as a result, he often finds himself in a forced-action situation... one in which he is forced to make a decision, or to take action, regardless of the costs involved or the consequences that might occur.

10. The skillful manager sets his own pace.

He decides how much he wants to accomplish and when. Sometimes it's a very fast pace, but not always. The skillful manager works when he works, he plays when he plays; there is no in-between. He plans his work, he plans his leisure. In this way he is continuously challenged, never bored, and he can relax when the time is right.

The unsuccessful manager relies on Parkinson, Gumperson, and Peter. Parkinson found that work expands to take up whatever time is available. Gumperson decided that the probability of a given occurrence happening is oftentimes in inverse proportion to its degree of desirability. The Peter Principle, a new one, hypothesizes that eventually most persons are promoted to the level of incompetence.

These three characters have attempted to explain why things go wrong. They have attempted to show why governments do not always legislate justice, why great universities do not always bestow wisdom, and why prosperity often fails to produce happiness!

*Department of Agricultural Economics, Purdue University

3

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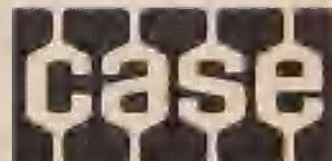
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VITTLE-PACKIN' MAMMA

Clang, clang, clang goes the trolley... at least according to the old refrain. But at Whitecrest Farms, near Adams, New York, the "trolley" is much more quiet.

The Whitecrest "trolley" is an automated, electrically-controlled calf feeder, traveling along a metal track, stopping at each of the 70 individual pens, six times a day... dispensing milk, hay and grain to its occupant. Manufactured by the Oneto-Gottelli Co. of California, the feeder has been incorporated into a new temperature-controlled calf barn built by Norman and LeRoy White on their 1,100-acre Jefferson County dairy farm.

This artificial two-teated "Mamma" offers any one of three quantities of milk or milk replacer to the individual calf. A memory device, controlled by metal buttons placed in a slot on the floor over which the trolley moves, determines the amount each calf receives. The milk, or milk replacer, is warmed at the instant of feeding by a thermostatically-controlled water heater. Capacity of the insulated, continuously-agitated milk tank is 140 gallons.

Metal Grate

The floor of each pen is a metal grate. Droppings fall through the grate into a 14-inch pit which is cleaned mechanically by a blade powered by two counteracting winches.

LeRoy White purchased the winches, which had previously served as hay hoists, for \$10 at an auction. I timed them as they moved the droppings from the pit into a manure tank. Total time elapsed... 45 seconds.

Heat and ventilation in the nursery are reciprocally activated, helping to maintain the temperature between 55 and 60 degrees. In the hot summertime, the thermostat is moved up to put a "floor" under the temperature and help keep the variation narrow.

The man responsible for the nursery operates on a 2 and 10 incentive... \$2 for every calf raised, less \$10 for every one lost. At the time of my visit, he had lost only two calves.

Only One

The new trolley feeder making its round trips in the push-button nursery is but one of the many innovative features that the Whites have incorporated into the total heifer-raising program for their 300-cow dairy. Their program starts in a maternity ward, where the newborn calf stays the first day with its mother. The next 8 to 10 weeks are spent in the nursery from which they are then moved to a special free-stall heifer barn split into three

sequentially-sized sections, each of which contains about 45 stalls.

The final phase of the rearing program is carried out in the main free-stall barn which is nearly 80 feet wide and close to 500 feet long. Not all this space is required for the milking herd, so about one-half the barn is used for heifers.

Altogether, 600 Holsteins make their home at Whitecrest, but the Whites are not stopping there. Typical of the advance planning evidenced at Whitecrest are the false fronts in the heifer free stalls, easily removable as the stalls become needed for milking cows. Dry cows are kept in a 10-year-old stanchion barn, now remodeled to include free stalls and an automatic gutter-cleaner-type silage feeder. — Bill Quinn

COWS AND HENS

The Plato Brook Farm near Arcade, New York, is a bit unusual in an age of specialization... having 12,000 laying hens and 105 milking cows. Owner Russell Miller comments that the poultry enterprise allowed a major expansion in size of business some years ago without the need for additional land. Facilities for 6,000 birds were built in 1963 and another 6,000 added in 1966.

Dairy cattle numbers have been growing, too, and a free-stall addition to the existing barn provides ample housing space. The herd is divided into two groups at present... producers and dry cows... for feeding.



Who says the draft horse is dead? Dick Sparrow (right, holding team) bought these 17 huge Belgians last fall at a horse sale in Waverly, Iowa, for the 40-horse hitch he'll drive in the 1972 Schlitz Circus Parade in Milwaukee next Fourth of July. Hundreds of these "heavies" were available at the sale.

Sparrow, of Zeoring, Iowa, now owns 38 Belgians and plans to buy more. He will train the horses, eliminating some from his "varsity," until he has a team of 40, plus two or three spares, that can turn the parade's tight corners. They'll be harnessed four abreast, ten deep, and will pull a circus bandwagon. Each horse weighs about one ton!

Those milking get all they'll eat of corn silage (about 50 pounds per day) that has been "beefed up"... "milked up" would be a better choice of words... with seven pounds per ton of urea, and eight pounds per head of a 20-percent-protein grain mix. The grain ration is composed of hominy and soybean meal. Grain is fed free-choice in the milking parlor... "grained according to appetite" is another way of putting it.

The milking herd also has free access to medium-moisture hay-crop silage for four hours per day... and they also consume four to five pounds per cow of dry hay daily. Dry cows and bred heifers receive the hay-crop silage only for roughage.

Russ reports what appears to him to be more-than-usual trouble with retained afterbirth among cows... a problem associated by some observers with high levels of silage feeding. The Millers are interested in experimenting with the use of chelated minerals as an approach to the problem. — G.L.C.

MECHANIZATION AND PLANNING

The silos... especially one of them... attract attention first at the farm of Carl Youngers of Bliss (Wyoming County), New York. They are both poured concrete, one 24x76 feet, and the other a whopping 24x100.

These two tubs form the basic roughage storage room here... haylage in the smaller one, and corn silage in the larger. Carl has fed no hay to the milking herd for the past year. Herd size has been up to 210 cows, but Carl figures 175-180 over the long haul. Herd average from DHIC figures is presently 13,000 of milk, 478 of butterfat... with 16,000 pounds the objective once the herd settles down to the facilities little more than a year old.

The free-stall barn is 76x194 feet, erected over a manure tank measuring 12x30 feet. A belt-line feeder for handling silages runs the length

of the barn, divided into two sections. All grain (a 24-percent-protein mix) is also fed in the feed bunk; the double-eight herringbone parlor not set up for grain feeding.

Although the parlor presently equipped with eight milker units, Carl would like to have 16... and have two milkers in the pit, plus helper. Each unit has a weigh-jar, and two cows are usually milked in each jar before emptying.

Schedule

The milking schedule begins 4:45 a.m. and 4:30 p.m. Carl reports a five-percent greater milk yield from the morning milking. "You can figure on losing five percent of your cow each time you substantially change your milking system," Carl comments. "That many just won't adapt to fit the change."

Only 12 of the Valley-View Holsteins are registered. Carl places milk produced per man at the top of his list of priorities, and doesn't feel it necessary to have registered cows. Bulls used for artificial insemination are proven purebred however.

The Youngers family... including Carl, his wife, and six children ranging in age from 16 years to 8 months... have two full-time employees to help operate the farm. On Sundays, two additional men carry the load so Carl can spend that day with his family.

In an occupation where the dairy farm owner has typically worked seven days a week, it's refreshing to see a family that programs regular time off for family recreation! — G.L.C.

TRENCH SILO

The Gray family... brother David and Bob, father John... are milking about 200 head of Holsteins on 400 acres near Aurora, Cayuga County, New York.

Dave says, "If you are going to put on more cows in this area, you've got to have more ensilage. We already had two concrete storage silos (one 26x60 and an 18x50) a "blue" 20x27, and an old metal one 14x40... so we had a chance to compare them all.

"We decided to go trench this time for several reasons. First of all, the low initial cost. We wound up with a 3,000-ton capacity trench for \$17,000. This also included a concrete apron to the loose housing barn. It might have cost three times that to store 3,000 tons upright.

"Other factors included the greater volume you can handle in a trench when it's all on the ground, cost of maintaining unloaders, speed with which you can distribute silage from a trench, and interest on the investment.

Breakdown

"Also, if an unloader breaks down, 200 head have to be fed, so somebody has to pitch! When the ensilage is on the ground, though, you can usually find a tractor with a bucket to get the job done. The difference in quality has been questioned by neighbors, but we find the our quality from the trench is good as attested to by the local milking

(Continued on page 2)

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the broadleaves, destroying weeds as they sprout, with no gambling on rain to get results. Surface-applied herbicides often fail without rain.

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Trench

(Continued from page 14)

firm that tests our silage every month.

"The job of building the trench silo was contracted out. We bulldozed 200 feet long, 60 feet wide and 10 feet high. We drew in 10 inches of gravel for a base. The floor was laid in sections without reinforcing rods. A strong mix was used . . . and, since the floor "floats," it has not cracked. The slabs will be a little uneven when the frost heaves them, but this doesn't do any harm; they soon settle back.

"The sidewalls are two-inch tongue-and-groove matched southern pine. They were painted with creosote by farm labor. The uprights are pressure-treated 4" x 4" x 14' square

posts set in the ground 4 feet and 4 feet on center. There are 4 feet of dirt on the outside of the walls. We used board siding instead of a concrete wall because if you want to expand you can just cut the poles off at ground level and use the floor for more barn, or a concrete barnyard. It sure costs money to move an upright silo!

"The trench is open at both ends. We use old ensilage and sawdust to plug one end, and we fill from the other. Last year, we covered the ensilage with plastic, but this year we didn't cover it with anything. Agway research has shown that good packing . . . like driving the tractor over it a few times . . . is good enough.

"We take the silage out of the

trench with a bucket on the tractor. We have a self-unloading box mounted on a truck to distribute the feed in the loose housing barn. It's a lot easier to drive a truck in there than to maneuver a trailing wagon behind a tractor." — *Gerald Stevens*

CENTURY FARM

It was back in 1798 that the ancestors of the Post family first settled in the beautiful Township Valley, east of Hobart (Delaware County), New York. Now, six generations later, David Post has taken over management of the dairy operation from his father, Donald.

Bertha Post, David's grandmother, lives in what was once a schoolhouse near the home farm . . . a schoolhouse

where she taught in the early 1900's. In fact, her students planted one of the maple trees presently shading the front yard . . . placed there on an Arbor Day long ago.

Production

The herd average is presently about 17,520 pounds of milk per cow and 591 pounds of butterfat . . . well above the comparable figures of 10,944 and 353 in 1953 when Donald started on official testing. There are four cows in the herd that have an accumulated lifetime production of at least 4,000 pounds of butterfat, and an average annual production of 500 pounds of butterfat per year of life since two years of age.

The Posts have been Dairy Lea members since the organization's founding, and have been active in a number of other organizations . . . Farm Bureau, Extension Service, the Methodist Church, and Holstein breed organizations.

Busy as he has been over the years, Donald has not had the time he'd like to devote to forestry. The farm name, Pineyvale Farm, reflects the magnificent stand of white pine in the valley below the farmstead. It has provided lumber for many building projects, including the knotty pine paneling in the new home of Donald and his wife, Helen. In 1964, he won an American Tree Farm System award for outstanding forestry management.

Peaceful

Amidst the beauty and tranquility of the Township Valley, it's easy to imagine that the mountains and meadows are somehow insulated from the turbulence of modern society. But a closer look reveals that the forces of change are apparent . . . massive changes in the technology of producing food at Pineyvale since 1798 . . . gigantic steel towers against the sky to the north that will carry millions of volts of electric power from the Gilboa Power Project . . . widespread land ownership in the area by urban non-farmers . . . reduced activity, especially of young people, at the very rural Township Methodist Church built in 1823 on land donated by an ancestor of the Post family.

Will someone in the Post family continue to operate Pineyvale into the 21st century? Perhaps . . . even now the sign by the farmstead home reads "David Post and Sons" . . . the sons being aged 3 and 4. Another sign there proclaims Pineyvale to be a Century Farm, an award made in 1971.

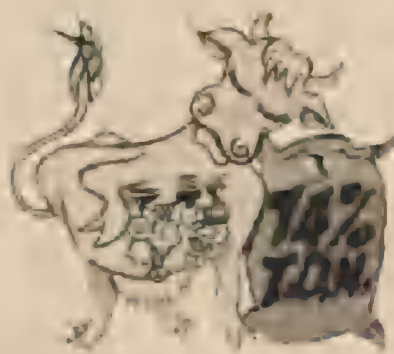
In a world seared by the firestorms of war and the savagery of social ferment, it is refreshing to visit with people having an unusual sense of permanence . . . people who look down the years beyond their own lifetimes to plan for the lofty trees that will provide the lumber to build homes for generations yet to come. —G.L.C.

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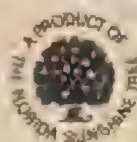
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Food For The Spirit



by Robert L. Clingan

HOW often have we heard stewardship sermons that deal only with what a man did with his possessions! Sometimes they dealt with his time and his talent as well as his money. On Rural Life Sunday, or Rogation Day, a minister may have discussed man's stewardship of the good earth, his accountability to God with the way he uses the natural resources that are his to use or misuse.

Such topics are important . . . yet there is a deeper concern in terms of man's "use-accountability" to God. This is the **stewardship of self**.

Crisis

In the developing life of a person, there usually comes an "identity crisis" . . . a person begins to take seriously **who he is and what he is**. There is an element of confusion and anxiety as a person tries to discover his true self, apart from all the roles society has forced him to play. "Who am I, anyway?" is the persistent question.

In the Genesis account of beginnings, God asked the guilt-ridden Adam, "Adam, where art thou?" He could just as well have asked, "Adam, who are you?" Adam was where he was, in hiding, because he was untrue to his deep and created

nature. Had he been true to his image, and kept himself accountable to the God in whose image he had been created, he never would have had occasion to force himself to hide.

Prodigal

In the New Testament of our Bible, we have the story of the prodigal son who left the comforts, securities and warmth of home to spend his share of the family inheritance on the temptations of the larger world. When his money was gone, so were his friends.

He finally found himself trying to live by working at a more menial and humiliating task than the lowest worker on his father's farm. The King James translation of the Bible

tells us that, "When he came to himself, he said, 'I will arise and go to my father,'" Bible scholars tell us that a literal translation of the original Greek reveals the words to mean that when he became conscious, he decided to go to his father.

Many ministers believe the misinterpretation of the translation has far more meaning. It suggests that when he came to himself . . . that is, discovered **who he was**, he decided to return to the Father to whom he belonged. He began to exercise the proper stewardship of self.

Paul

The Apostle Paul apparently believed in this kind of stewardship of self. He wrote in the thirteenth chapter of second Corinthians,

"Though I give all I have and give my body to be burned and have not love it profiteth me nothing." He would be the first to recognize that we do accomplish something for others by our gifts . . . yet we do not grow spiritually unless our motive is self-giving love.

Too often, we give in arrogance, or in pride . . . thankful that we can give and are not like those who can only receive. Sometimes we even give so others will think well of us. In this kind of giving, we do not experience spiritual growth or receive spiritual reward.

Somehow, the **stewardship of self** must be brought into play. It is our self, the core of our being, our real identity, that must become accountable to God.



ROADS

The white road leads to the harbor;
The gray road leads to the town;
Now if I take the gray or white,
I must forsake the brown.

The white road winds down the valley;
The gray road twists through the moor;
The brown road runs by the barley fields
And goes on straight and sure.

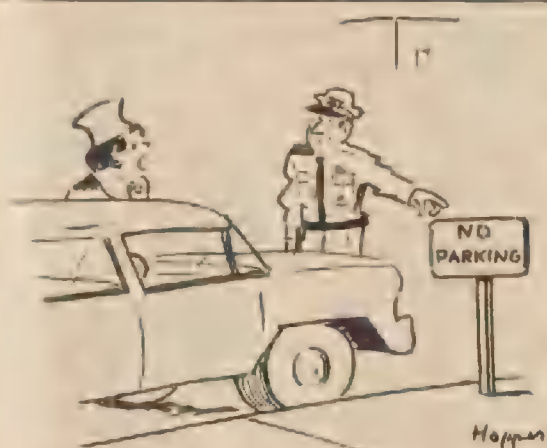
Wild gulls are cutting and crying;
The wind's sharp claws are bare;
Huge, bellying sails go thundering out
To far ports anywhere.

The town is living and moving,
Roaring with blood and flame,
And hearts surge high in the rumbling
streets,
Boating never the same.

Gray road and white lead outward;
The brown road stretches home;
Long, lonely miles roll down to find
Gray houses or gray foam.

So I must follow the brown road
And be where the brown road ends,
Where gardens blossom at open doors
And all are at home with friends.

by John C. Evans

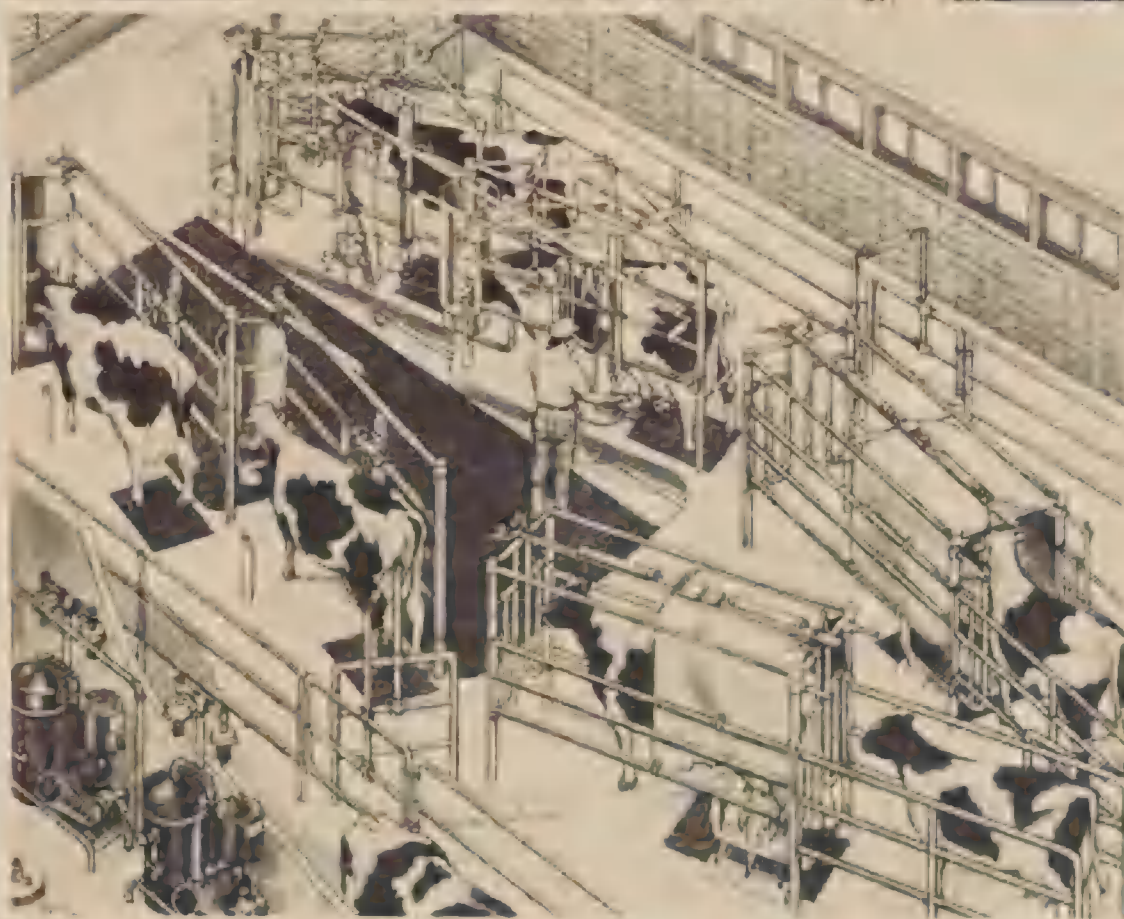
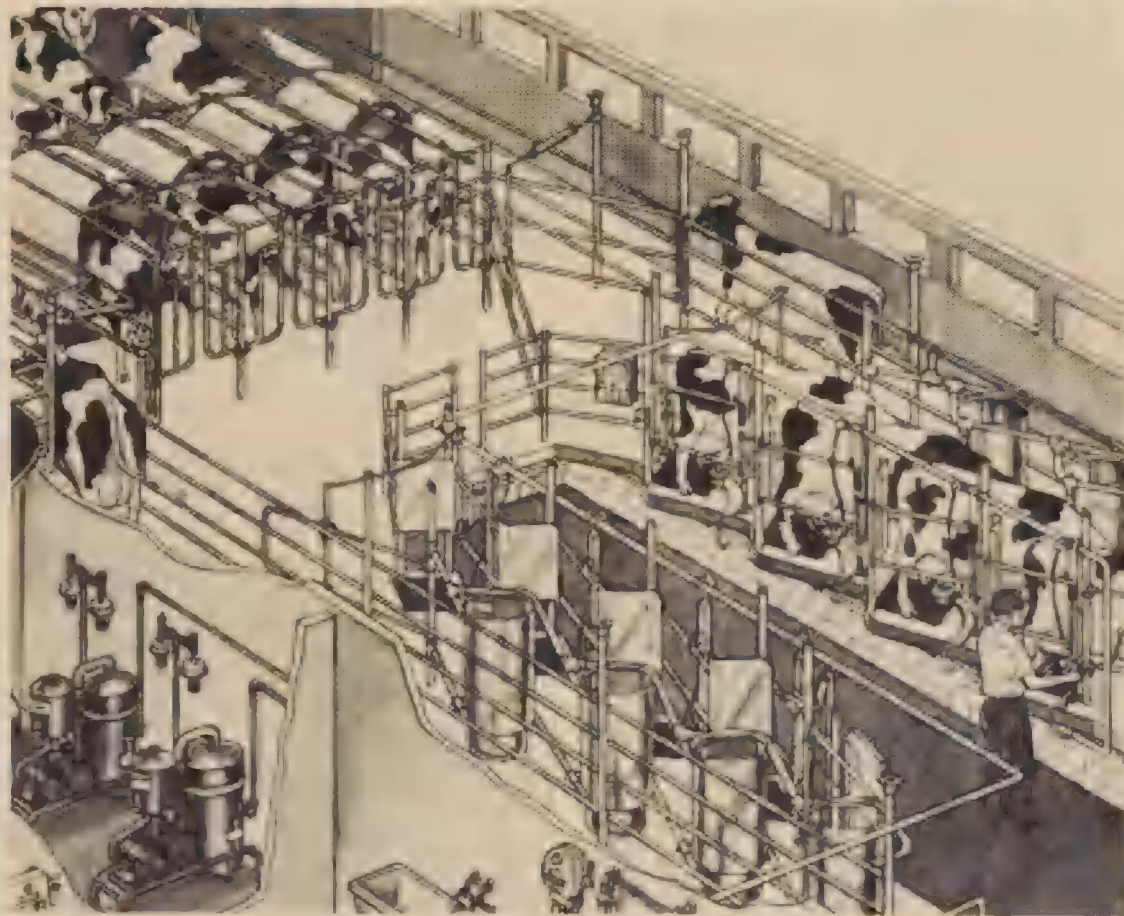


"I'm sorry! I didn't know anything was illegal anymore!"

American Agriculturist, February, 1972

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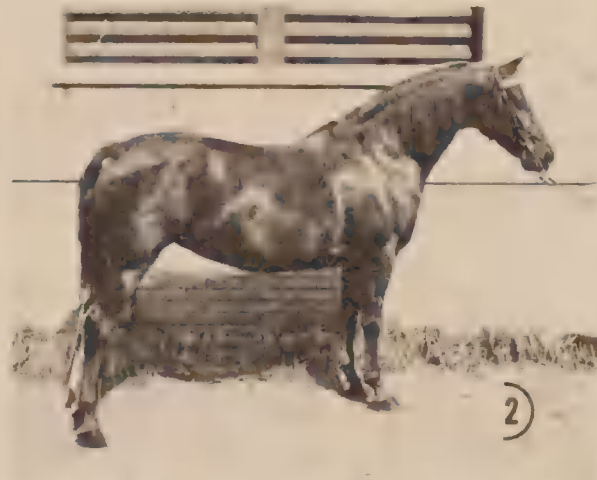
American Agriculturist

1972 HORSE JUDGING CONTEST

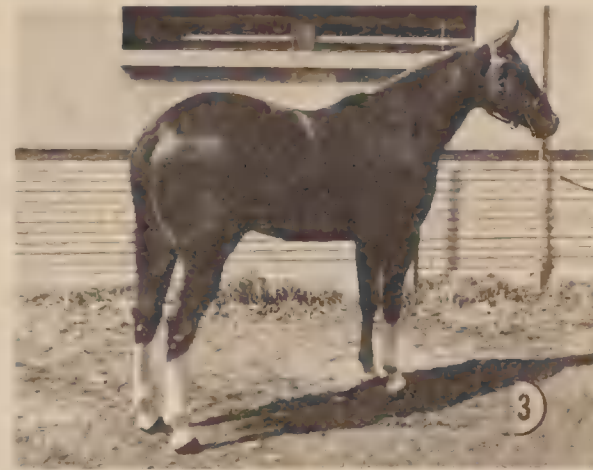
Class 1



Class 2



Class 3



Class 4



Class 5



Official placings and reasons will appear in the May, 1972 issue of American Agriculturist. The entry form for the Horse Judging Contest . . . which may be duplicated for state or local contests . . . appeared in the February, 1972 issue.

AMERICAN AGRICULTURIST
HORSE JUDGING
CONTEST

As a means of providing educational materials for those who are interested in horses, and for the use of Extension Services and other groups that may wish to conduct judging contests, we are offering five classes for use in studying and evaluating horse conformation.

RULES OF 1972 PICTORIAL HORSE JUDGING CONTEST

- 1. Competition is open to residents of the New England States, New York, New Jersey, Delaware, Maryland and Pennsylvania who own, ride or manage horses, or have an interest in them.
2. AMERICAN AGRICULTURIST employees and their families... as well as professional members of agricultural schools, colleges and Cooperative Extension... are not eligible.
3. The official entry form for the contest appears below. This form may be duplicated.
4. Only one entry per person is allowed. Print or type all information required, and mail so that it will be postmarked no later than midnight, April 15, 1972 to:
AMERICAN AGRICULTURIST
1972 Horse Contest
Box 370
Ithaca, New York 14850
5. Blue ribbons will be awarded to at least the top 250 high scorers on placings. In addition, special trophies will be awarded to the top 10 contestants.
6. In the final determination of the trophy winners, the judges may, if necessary, request a set of reasons on one of the classes to provide a basis for breaking tie scores.
7. Keep a copy of your placings, or mark your AMERICAN AGRICULTURIST for later reference. No entries will be returned. The decision of the judges in making all awards will be final.

8. A complete summary with names of winners, the official placings, scoring key, and reasons will be published in AMERICAN AGRICULTURIST after the close of the contest.

CONTEST MATERIALS
MAY BE PURCHASED BY ANY
STATE OR LOCAL GROUP

- 1. State and local groups anywhere in the U. S. that sponsor their own contests may use these same classes. Those entering such local contests may enter the AMERICAN AGRICULTURIST contest as well if they are residents of the New England States, New York, New Jersey, Delaware, Maryland or Pennsylvania. States outside this area may develop their own entry form.
2. Reprints of the pictorial presentation shown at left may be purchased (without entry forms) by commercial organizations, colleges, vo-ag departments, local 4-H clubs, Extension Service offices and other groups (anywhere in the U. S.) from the AMERICAN AGRICULTURIST at the following price schedule:

Table with 2 columns: Number reprints, Cost per sheet. Rows include 20-50 (10¢), 51-100 (8¢), More than 100 (6¢), and Minimum order of 20.

3. The five classes are available in a set of 2"x2" black-and-white slides at \$5 per set. Please send check, money order, or purchase order to:
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After April 15, 1972, the official scoring key, placings and reasons will be published in AMERICAN AGRICULTURIST, and will be sent on request to slide purchasers.

*OFFICIAL ENTRY FORM

Mail before April 15, 1972 to:

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Form fields: Your Name (Please Print), Street, R.D. or Box Number, Village or City, Zip Code, County, State.

Form fields: Do you live on a farm?, Check your age (9-19, 20-39, 40-59, 60 or over), How many horses on farm or premises where you live?, How many boarded off premises?, Are you a 4-H member? (Yes/No).

YOUR PLACINGS

Table with 5 rows (Class 1 to Class 5) and 4 columns (1st, 2nd, 3rd, 4th) for recording placings.

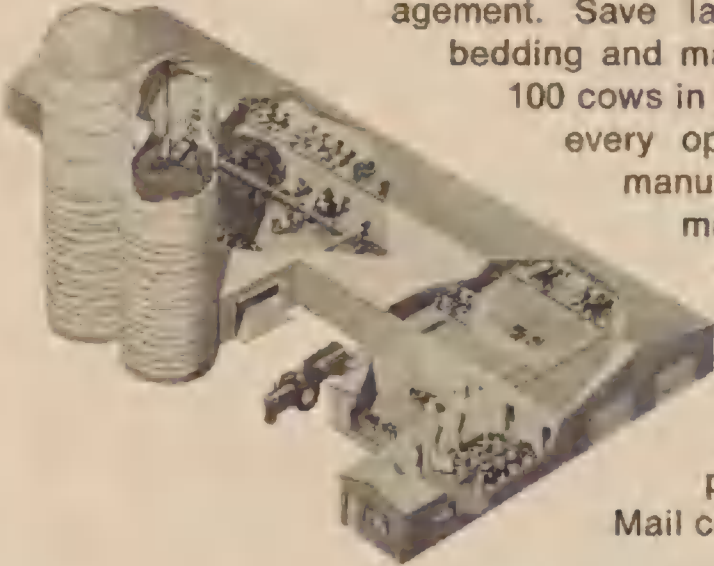
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COOK COLLEGE

by Amos Kirby
New Jersey Editor

BIG plans are underway involving the College of Agriculture and Environmental Science at Rutgers University. Dr. Edward Bloustein, the University's new president, has unfurled plans under which the College will be combined with liberal arts and biological sciences in a new entity to be called Cook College. The name honors George H. Cook, the first director of the Agricultural Experiment Station.

New Jersey farmers and other agriculturally-oriented people will continue to be served through the expanded facilities. Dr. Bloustein has assured farmers that agriculture need have no fear of any reduction in services.

When Cook College opens in September 1973, it will be a coeducational institution ... officially tagged as a "multi-purpose, environmentally-oriented college with major offerings in the liberal arts and in various applied disciplines."

The Agricultural Experiment Station and the Cooperative Extension Service will be separately organized, but under the jurisdiction of the dean of Cook College.

POLLUTION CONTROLS

The full impact of pollution controls on agriculture are yet to be felt. The year 1972 may be when agriculture will be faced with regulations never before experienced.

There will be no more leaf burning (January 1, 1972 final date) in municipalities that have passed ordinances prohibiting this method of disposal. Brush burning in orchards will be permitted, but permits must be secured from the Department of Environmental Protection.

The day of burning grass and weeds in open fields may be a thing of the past. Don't be surprised if the practice of spreading manure on open fields in the winter months may some day be halted. If this comes to pass, it will be due to the fear of nitrogen-phosphorus runoff into streams.

Penn State specialists are describing concrete structures for stockpiling both liquid and solid wastes during the winter. Many environmentalists have the idea that much of water pollution is due to runoff from farms. Pollution is going to be a very controversial subject in the coming year!

COOPERATIVE MARKETING

The annual report of the New Jersey Cooperative Marketing Association shows the trends in distribution of fruits, vegetables, poultry and cattle.

On a one-percent increase in the number of packages of fruits and vegetables sold on auction blocks and by direct sales, the total receipts were up by 10 percent. Auction sales were up by 3 percent, while direct sales in terms of packages

were down by 12 percent from the previous year.

Egg sales showed a sharp decline of 29 percent, with a reduction in total number of cases and a nearly \$2 drop per case in the farm price. The bright spot in the poultry deal was a 6 percent jump in the number of birds sold, and nearly 4 cents per pound increase in the price of birds. Livestock sales were about equal ... with slightly over 52,000 head sold at an average price about 86 per head below the 1970 average.

The Vineland auction has become the largest fruit and vegetable outlet in the State. It sold over \$9 million worth in 1971, up by more than one million from the figure for 1970.

PESTICIDE DISPOSAL

It is going to be about as easy to rob a bank in New Jersey as it is to dispose of unused pesticides. Under the State's new pesticide control act, to get rid of unused pesticides that may be prohibited (or that have deteriorated), one must secure approval from the Department of Environmental Protection.

BREWERS GRAINS

Wet brewers grains have a definite place in the dairy cow's rations as a silage extender. Corn silage contains less digestible protein than wet brewers grains, but more total digestible nutrients.

Limit the feeding of brewers grains to 25-30 pounds per cow daily. To avoid any off-flavor in milk, delay feeding the grains until after milking.

If silage is over-mature and excessively dry, wet brewers grains mixed with dry corn can result in a balanced intake, and improved acceptance by the cow.

PLANTING PLANS

This is a difficult year for growers to do much advance planning. New Jersey, with its multi-cropping practices (especially in the vegetable segment), is having difficulty planning what to plant.

As viewed from the writer's crystal ball, dairymen are apparently in the lead ... with a staple market, an outlet for all the milk produced, and little or no increase in competition from others starting in the business.

Apple and peach growers are in second place. There will be some shift in 1972. Growers who have been depending on processors are removing certain apple varieties, and in this manner are cutting back on total production.

Some change is taking place in peach production. A number of early and mid-season varieties that must meet the severe competition from highly-prized varieties coming in from the South are doomed.

There will be further reduction in asparagus acreage of cutting age; many fields with low produc-

tion have already been removed. Those who used mechanical harvesters in 1971 will continue, for the most part, as there have been few criticisms of the harvesters.

The outlook for growers of vegetables for the processing industry depends on the contract prices that are eventually offered. Because prices are not likely to be announced until late in March, it is impossible to anticipate what will be the trend in acreage for processing crops.

The low price on field corn might make this another crop with uncertain profits. In 1971, New Jersey had a substantial "floating" acreage that went into corn.

PORTABLE TOILETS

The Extension Service has approved plans for those portable privies that growers must install in 1972. The plans have also been approved by the federal government, and copies are available through local Extension offices in every county.

There is a possibility that growers will be able to rent the toilets from a commercial manufacturer at a charge of \$40-\$50 per month. It's possible that some arrangement for their rental may be worked out through the Glassboro Labor Camp.

THE CULPRIT

The discovery of a solution to Marek's disease is now being blamed for the low prices of eggs in recent months.

Poultrymen have experienced sharply-reduced flock mortality from Marek's disease, and the extra birds increased total production far beyond the normal consumer demand.

In an effort to stabilize egg production, proposed legislation is now before Congress. Known as the "Egg Industry Adjustment Act," it calls for the registration of all egg producers through the county, at ASCS offices already established by the USDA.

It provides that an egg advisory committee notify the U.S. Secretary of Agriculture when there is a need to adjust production, and the Secretary could enforce a mandatory reduction in fowl among all commercial egg producers with more than 10,000 laying birds. Enforcement would be through the county ASCS offices.

This is one of the most important legislative issues to confront poultrymen in many years. There is need for serious consideration of what it can do for ... and to ... the industry.



"Are you trying to upset the national economy? You haven't borrowed from us for three years."

American Agriculturist, February, 1972



The Hicks family (l to r) standing: David, Daniel . . . seated: Herman, Maralee, and Thomas.

FHA FAMILY OF THE YEAR

The Herman C. Hicks family, Albion, New York, has been selected as the New York State Farmers Home Administration "Farm Family of the Year." Family members have been honored at a luncheon, at which the New Holland Farm Machinery Division, Sperry Rand, Inc., presented them a commemorative plaque.

Herman graduated from high school in 1952, and started working on his father's farm of 87 acres. Dairy cows, chickens, and tomatoes were the main enterprises. The dairy herd, which is prefixed the Hicks-Hollow Farms, has been bred exclusively with the Eastern Artificial Insemination Cooperative for 19 years.

The herd average went from 9,040 pounds milk and 339 pounds of fat for 18 cows in 1955 to 14,527 pounds milk and 526 pounds fat for 50 cows in 1971. In 1970, the herd earned the DHIC trophy for the greatest one-year production improvement in Orleans County.

Herman, with FHA assistance, purchased the entire business from his father in 1965. There have been numerous improvements and additions to the building and land. The Hicks now own 222 acres and rent 130 acres. The main enterprise is now dairying.

Both Herman and his wife, Maralee, are active in a wide variety of farm and community organizations . . . DHIC, ASCS, Dairy Lea, Farm Bureau, and Boy Scouts. The Hicks have three boys ages 11, 13, and 14. The boys are active in the 4-H Club, Boy Scouts, and the church.

MOBILE HOMES

A series of publications on mobile homes has been prepared by the New York State Office of Planning Services, 488 Broadway, Albany, New York 12207. There are seven in the series, entitled:

- Facts on Mobile Homes
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- Copies may be obtained by writing the address indicated.

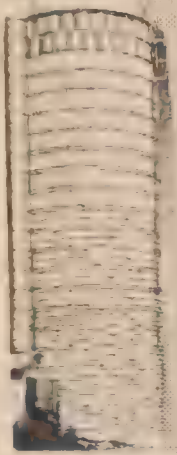
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Congress considers

TWO FORESTRY BILLS

OWNERS of forest land in the Northeast... and we number about 300,000 in New York State alone... should keep a sharp eye on what Washington is planning for us. Two western senators have introduced bills (S. 350 Hatfield and S. 1734 Metcalf) which propose drastic changes in public policy toward private forest land. One of these bills (Metcalf) would practically annul the common-law concept of private forest property.

Both these bills state fine purposes, but beyond that point their similarity ends. Senator Hatfield proposes a cooperative program, such as farmers already know through the several federal and state agencies with which they deal. Heretofore, their forestry aspects have dealt mostly with research, fire control and reforestation.

Hatfield's proposals would expand them and add forestry education. Each state would have to prepare an intensified program for its commercial forest lands to qualify for 50-50 matching funds from the federal government.

Senator Hatfield presided over hearings in 1971 at the College of Forestry in Syracuse. In explaining their purpose, he commented on the 30 million Americans who live in poor housing, the country's 37 million acres of unstocked forest land, and the need for environmental improvement on the 510 million acres of commercial forest land in the U.S. He spoke to an audience of over 500, and heard 34 witnesses. More than half of them favored his bill, but 15 supported the radically-different Metcalf bill.

Senator Metcalf apparently has no faith in the intentions or ability of private landowners to act for the

public good. His bill would require each state to designate its commercial forest land. Each owner of such land would be required to hire a forester licensed by the state, and to follow the management plan the forester prepared. Selling timber from other than commercial forest land... or in violation of the cutting plan prepared for commercial forest land would entail a fine of \$10,000 or a year in jail.

Wow!

Most forest landowners wonder what crisis has caused Congress to consider such savage forestry measures when the most urgent matters of environment concern pollutants to air, water and scenery. The shopworn clichés of "forest destruction" and "timber famine" need restraint in their use... lest they bring about panic legislation. If they do, private forest landowners can be the scapegoats.

Both senators are westerners, and their bills deal with 510 million acres from Alaska to Florida. Neither one has dealt specifically with conditions in northeastern states. These states are not likely to match federal money on a 50-50 basis, nor have they large areas in need of planting, as in the South. Wood quality is more the problem here; this fact Hatfield's bill conspicuously ignores.

The heart of his bill is the proposed Federal Forest Land Management Fund. We have very little federal timberland in the Northeast, but in the Northern Rockies and along the Pacific Coast, the federal government holds most of the land and timber. The productivity of these lands has been low because

(Continued on next page)

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The Song of the Lazy Farmer

The trouble with my neighbor is, he lets his temper boil and fizzle no matter what you talk about, he'll start to wave his arms and shout. If you do nothing more than say, "Ain't this a hang-up winter day," he'll argue that the sun's too bright or prophesy a storm 'fore night. There ain't a subject in the land on which he doesn't take a stand; he also knows just what to do 'bout China, Greece or Tambucton. No matter how hard both sides fight, he will insist that neither's right; each little word he reads or hears drums up in him some brand-new fears.

What worries me about the guy is that his pressure gets so high; I'm scared to death some day he'll burst and I won't get away safe first. The way the blood fills up his head and turns his face a scarlet red, I'm sure a safety valve would show that his poor top's about to blow. Why, it has been a long, long while since I last saw him crack a smile; his nerves

are shot, his breath comes short, and he drinks tonic by the quart. He even gets wound up so tight he rolls and tosses ev'ry night; can you imagine anything worth losing sleep about, by jing?



American Agriculturist, February, 1972

as every farmer knows, it takes money to make land produce. Hatfield's proposal is sound and direct; it would use the income from federal timber to develop the timber resource. The immediate result would be increased sales and more lumber for housing.

Motives

The motives underlying the Metcalf bill are more obscure. Undoubtedly they reflect the current uneasiness over the environment and a desire to find a remedy without too much expense, difficulty or inconvenience.

Americans see environmental deterioration on all sides whose real culprits touch the very core of our lives . . . automotive exhaust, industrial pollution, highway construction, and the like.

We will soon have nearly as many automobiles as people, but only 4.5 million forest landowners. Why, the general public rationalizes, not unload our frustrations upon landowners?

A second motive which has worked its way into the Metcalf bill is that of resolving the controversy about clear-cutting. Some citizens of Montana (Senator Metcalf's state) have protested certain tree-harvest practices in the Bitterroot National Forest.

One would think that this rather technical matter could be solved without recourse to congressional action. Not so: Senator Metcalf has incorporated their protests into provisions that would regulate in minute detail the cutting of timber on all commercial forest land, and prohibit it elsewhere!

Keep At Home

He has also written into his bill a prohibition of exports of logs, or unfinished forest products. Softwood log exports to Japan increased sixfold in the 1960's, with notable benefits to loggers, dockworkers on the West Coast, our foreign exchange balance, and forest landowners.

However, certain millowners on the West Coast would prefer to buy logs without foreign competition. Hence their demand that the people at large pay for their deficiencies by prohibiting the export of logs.

As in Syracuse, other hearings held in Portland (Oregon) and Atlanta (Georgia) drew overflowing audiences and more witnesses than the schedule could accommodate. Presumably, Senators Hatfield and Metcalf will rewrite their bills on the basis of evidence and opinions submitted at these and other hearings.

The chances of congressional action on an investment fund for the National Forests are good. Both bills support the idea; it is badly needed, and has received widespread approval.

The real danger is that, in the name of compromise, burdensome and unworkable provisions will become law. Our forestry problems are not solved . . . but they hardly warrant swatting a fly with an atomic bomb . . . as Senator Metcalf proposes to apply! Senator Hatfield's American Forestry Act is more restrained, and more likely to attain the objectives proposed. — Henry Kernan, Worcester, New York.

American Agriculturist, February, 1972

Dates to Remember

Feb. 9 - 3rd Annual Central New York Regional Retail Nurserymen's Conference, Holiday Inn, Cortland, N.Y.

Feb. 14-15 - Certified Seed Potato Growers Conference, Syracuse, N.Y.

Feb. 16 - Roadside Marketing And Pick-Your-Own School, Albany, N.Y.

Feb. 19-26 - National FFA Week

Feb. 19-27 - 28th Annual National Antique Show, Madison Square Garden, New York City

Feb. 21-24 - 16th Annual New Hampshire-Vermont Hard Health Conferences: Feb. 21 - Mt. Abraham Union School, Bristol, Vt.; Feb. 22 - Lake Region High

School, Barton, Vt.; Feb. 23 - Town Hall, Roscawen, N.H.; Feb. 24 - Town Hall, Beth, N.H.

Feb. 23-24 - Massachusetts Dairy Farmers Seminar, Highpoint Motor Inn, Chicopee Falls, Mass.

Feb. 23-24 - 6th Annual New York State Processing Vegetable Conference, Holiday Inn, Batavia, N.Y.

Feb. 28 - Mar. 2 - Annual Turf-grass Conference, Cornell University, Ithaca, N.Y.

Mar. 6-11 - Pennsylvania Home and Garden Show, Fern Show Building, Harrisburg, Pa.

Mar. 16-17 - 25th National Conference on Rural Health, St. Francis Hotel, San Francisco, Calif.

Mar. 21-23 - 5th Annual Road-

side Conference of New York-New England Apple Institute, University of Massachusetts, Amherst, Mass.

Mar. 21-23 - Beef Cattle Conference, Penn State, University Park, Pa.

Mar. 24-26 - 25th Annual Pennsylvania Maple Festival, Meyersdale, Somerset County, Pa.

Mar. 25 - New York Hereford Association Spring Sale, Ithaca, N.Y.

Mar. 28-30 - Swine Producers Short Course, Cornell University, Ithaca, N.Y.

Mar. 28-30 - Swine Management Conference, Pennsylvania State University, University Park, Pa.

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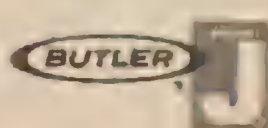
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PARK 'N' PICK

The new trend in marketing.....

SPIRALING labor costs and a decreasing supply of farm labor have forced many northeastern fruit and vegetable growers to turn to pick-it-yourself marketing in an attempt to overcome the farm labor dilemma. The practice is likely to become even more popular as the labor market continues to tighten and good picking crews become scarcer.

Of course, pick-it-yourself marketing requires some labor, but of a different type. Many farmers get by with family labor, while a minimum of outside help is necessary in most of the larger operations.

At Valley Brook Farm near Townsend, Delaware, Nicholas Uniatowski has 15 acres of strawberries for pick-it-yourself customers. He started opening his berry patches to customers four years ago.

Doubles Acreage

That first year, he had only seven acres of strawberries for customers to pick, but his trade has grown so rapidly that he has more than doubled his acreage since.

"We've had strawberries for over 10 years, but we were always able to get picking crews to harvest the crop until four years ago," he says. "That year, we had men signed up to pick our berries, but when the crop was ready, the pickers didn't show up... so we opened the fields to the public."

"Last year (1970) was the first year we sold our entire crop of strawberries to pick-it-yourself customers," he adds.

At Laurel, Delaware, Carlton Lowe has been marketing strawberries from the field for five years... he has close to eight acres.

"We still market some through a local auction, but there has been a definite increase in the demand for pick-it-yourself berries," says Lowe.

Other Crops, Too

Both of these producers use pick-it-yourself marketing to sell other crops besides strawberries. Lowe has peas, beans, raspberries and blackberries for customers to pick. Uniatowski markets some peas, snap beans, lima beans, peppers and tomatoes from the field.

Before customers go into the fields to pick their berries or vegetables, Uniatowski and Lowe have them check in at market stands. Here they get picking containers and information on pricing, how to select the best fruit, and where they are to pick.

Since some of Lowe's fields are a good distance from his market stand, two employees are stationed in the fields... one to direct traffic to the picking areas and show customers where to park, the other to help customers in the field.

Uniatowski uses less field super-

vision, but both growers agree it's important to control the size of the picking area opened to the public at one time.

"We try to have customers pick over a particular plot at one time so that all of the ripe fruit in that area is harvested," says Lowe. "When nearly all of the mature produce has been picked in that field, we close that area and open another. This practice enables the fruit to mature uniformly and causes less stress on the plants."

Set Own Price

As individual growers, farmers have little influence or control over the wholesale-market price. In pick-it-yourself operations, however, they have more flexibility in the market. Uniatowski and Lowe both know that the price of their crops will be the cost of production plus a small markup.

Although a pick-it-yourself operator can't let his prices get way out of line with local retail prices, he can usually set them above wholesale prices. Few consumers realize what the normal spread between wholesale and retail is, and a price that is somewhat below retail is usually considered quite reasonable by pick-it-yourself customers.

Uniatowski supplies free picking containers, but customers turn in the boxes when they check out. As long as each customer is using the same size picking container, there's no trouble determining the total quantity of fruit each one picks.

Lowe lets his customers keep their picking boxes, adding the cost of the containers to the price of the fruit.

Consumer Demand

One of the keys to successful pick-it-yourself marketing is to have a fairly large population to serve. A good advertising program also helps. Although their facilities are some distance from a major highway or large urban center, Uniatowski and Lowe have had little trouble in establishing a prosperous trade.

"We advertise through newspaper and radio," says Uniatowski, "but our most effective advertisement is a satisfied customer who goes out and tells his friends and neighbors about our farm."

Goodwill also brings back the customers for Lowe. However, he prefers radio spot announcements to advertising in print. "By radio, you can let your customers know from day to day exactly what you have to pick and how much," he explains.

Most of their customers live within a 30-mile radius of their operations, but both note that some families drive as much as 60 or 80 miles to pick their own fruit and vegetables.

Pick-it-yourself marketing is not for every farmer, though. A grower must possess certain qualities to make this type of marketing program work. Maybe one of the most important qualities is the ability to get along with the public. He will face all of the aggravations that most retailers have. He'll have to be able to firmly enforce his regulations without offending customers, and at the same time be fair and patient.

Few businesses can operate without some rules or regulations. A grower who goes into pick-it-yourself marketing should try to make sure his customers understand the rules he has established. Some of the items that should be spelled out include:

- * Minimum quantity of produce that must be picked each time a customer visits the farm. With many crops, growers do not like to set a minimum.

- * Whether you or the customer supplies the picking containers, and whether the pickers can take them home.

- * Standards used to determine purchases. Will you sell your crops by weight or volume?

- * Policy on allowing children in the fields. Some growers set an age limit.

- * Picking procedures... the size of the area to be opened each day and the pattern pickers are expected to follow.

- * Daily opening and closing hours and the days of the week the farm will be open.

- * Clearly stated price per unit.

- * Span of weeks or days the farm is expected to be open during the season.

- * Instructions on how to choose ripe, high-quality produce.

- * If ready-picked produce is available, state the cost and where it can be obtained.

Growers thinking about starting a pick-it-yourself operation should realize they are selling more than produce. Although high-quality produce is important, growers should remember they are also selling an experience... an "afternoon on the farm." They are selling top-quality produce because "I picked it myself."

Pick-it-yourself marketing should be an experience that makes customers willing to drive some distance to get produce because they can't get it anywhere else. — *From comments by Roger Ginder, Extension Crops Marketing Specialist, University of Delaware.*



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NORWOOD	Norwood Motor
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SALEM	Salem Farm Supply
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THERESA	Pete Giltz Implm't
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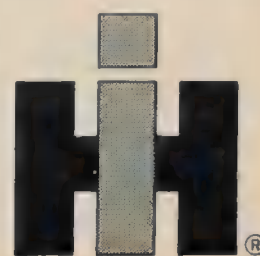
At last. A planter that uses ungraded seed. Plants to a stand at speeds up to 7½ mph. Has no seed plates. Has only 3 moving parts in the metering and delivery system. Has only one hopper that holds 600 lbs. of seed. Lets you switch crops in less than 5 minutes. Only our new CYCLO planter does all this. Because it plants with air!

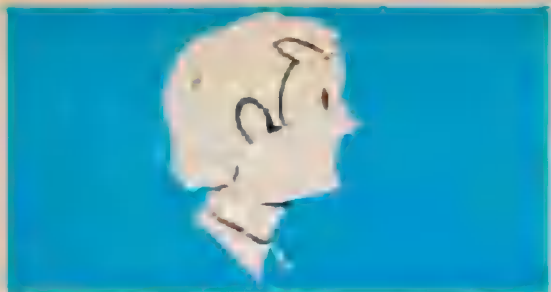
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Plant from 4 to 12 rows without seed bounce or scatter. Save time filling seed hoppers. With ours, you fill only one instead of 4 to 12 units.

Air-powered planting—the kind of breakthrough you'd expect from the company who also developed the rotary valve planter. Before you decide on any planter, stop in and see the revolutionary new Cyclo® planter now at your International Harvester dealer.

International Harvester Co.





The American Agriculturist Foundation has been giving awards to outstanding young men and women in high schools in the Northeast for 25 years. Here's a look at a representative group of those who received the awards in 1971.

Youthabilities Unlimited



by Mary Craig

"ONE of the best jobs ever done for rural young people was the organization in the high schools of vocational courses in agriculture and home economics."

So begins the story on the cover of our October 6, 1946 issue... a story which announced the AMERICAN AGRICULTURIST Foundation Award program to recognize outstanding all-around achievement by high school agriculture and homemaking students.

We'd like to mark the end of the quarter-century since that issue was published by telling you about the pleasure we've derived from "knowing" the thousands of young people who, over the years, have received the Foundation Award. But looking back is a space-consuming luxury we can't afford!

So instead, we'll ask you to join our anniversary celebration by reading about the group chosen to typify the work of 1971's crop of winners. In a world where the headlines seem to accentuate the negative, it'll do your heart good!

Young Women

The AMERICAN AGRICULTURIST Foundation Award winner at **Glastonbury High School, Connecticut**, was **Deborah Reynolds**, an outstanding student in all areas of work, particularly horticulture, during three years in the vocational agriculture program. Active in FFA, she served as secretary and reporter, and as chairman of numerous committees.

An honor roll student, Debbie plans to further her education by studying horticulture at the University of Connecticut.

"Always willing, dependable, resourceful and creative" is how Mrs. Rihannah Gaw, homemaking teacher at **Wachusett Regional High School, Holden, Massachusetts**, describes award winner **Christine Penney**.

Christine served the FFA chapter in several offices, and was also active at state level, attending meetings for the past few years.

Plans for the future include home economics study for her college major. All indications are that she is well motivated and qualified for her choice.

Granite State

Susan Thoin, of **Marlborough High School, New Hampshire**, is a prime example of an all-around high school senior, active in every phase

of school life and well-liked and respected by the student body.

Promoting school interest was one of Susan's goals throughout her high school years. She was a cheerleader, and a member of the school chorus. Her literary talents, too, were put to good use in various assignments on both the yearbook and school newspaper staff.

Her leadership qualities were perhaps most clearly shown in her responsibilities as a member of the student council for four years, and as a secretary and president of the student court.

Besides her school activities, Susan held a part-time job. Church was also a major interest.

Environmentalist

Soon after **Cathie Macallister** joined FFA in her freshman year at **Northern Burlington County Regional High School, Columbus, New Jersey**, she began to concentrate on horticulture, applying her knowledge at home to help her parents raise and sell nursery plants, and saving her share of the sales for college.

In addition to many chapter meritorials, she won FFA awards at state level, including the 1970 New Jersey FFA Ornamental Horticulture Proficiency Award for her chrysanthemum-raising project. She then went on to win the North Atlantic Regional Award. Cathie also won many ribbons and medals for 4-H sewing and cooking projects. She participated in school athletics, was on the newspaper and yearbook staff, and was active in her church.

A fine student... fifth in the senior class... she was elected to the National Honor Society, and was accepted at Douglass College to major in environmental science at Rutgers University.

Southern Tier

A sincere desire to do her very best marked **Doris Jennings'** work during her three years in home economics classes at **Belfast Central School, New York**. A willing and cooperative worker for projects outside class, she could be relied upon to carry out whatever responsibilities were hers without adult prompting.

She has been a member and leader in Junior Grange for several years, an active 4-H'er, and a generally productive member of her school and community.

Carol Horton, of **Campbell Central School, New York**, is a farm girl who joined home economics classes for the first time in 1970, and did a commendable job, showing much interest and improvement. She works well with other people, and is helpful and cooperative.

At **Clymer Central School, New York**, the award was presented to **Deborah Humes**, a vocational homemaking major active in FFA during all four years of her high school career.

As a candy striper at a local hospital, she has given many hours of volunteer work, and plans to continue her studies in nursing after high school graduation.

Diana Moehring, winner at **Minerva Central School, Olmstedville, New York**, is the oldest of four children who have lost both their mother and father, and now live with aunts and uncles. Diana has quietly taken a great deal of responsibility for her younger brothers and sisters.

She has compiled a record as a good home economics student, a class officer, and served on the yearbook staff. She was active in band, chorus and dramatics. As a senior, she worked in the school as an office assistant. Her teacher, **Avis S. Kedmence**, feels that Diana will continue to be successful in her training to become a legal secretary at Central City Business Institute, Syracuse, New York.

North Country

At **Northern Adirondack Central School, Ellenburg, New York**, **Debra Gardner**, a junior, won the Foundation Award. Debra is an excellent student who not only does the required work, but will often do extra work on her own. A willing volunteer, she is dependable and has a pleasing personality, including a sense of humor.

Joyce Slater, of **Sharon Springs Central School, New York**, has shown outstanding scholarship in homemaking, as well as initiative, dependability, and the ability to get along well with others. She has participated in many school activities and clubs, and served in numerous class offices. She has maintained an excellent attendance record.

The quality of leadership and the fact that she is always a cheerful, willing worker, well-liked by her classmates, went far to win the award for **Darla Bates**, a junior at **Sherburne-Earlville Central School, Sherburne, New York**.

She has worked on several money-making projects, always with great success because of her good judgment and ability to get the other girls' cooperation.

Darla is president of her FFA chapter, and active in Sunday school and church.

The 1971 award winner at **Trumansburg Central School, New York**, was **Marcia VanDerzee**, a senior majoring in home economics.

Many were the times that Marcia was chosen chairman of some class project, and could always be depended upon to do an excellent job in planning and directing the activity.

She is described by her teacher, **Margaret E. Elliott**, as "sincere, fair, honest, and a good example of a young woman who wishes to do her best for herself, her family, and her community." Like her teacher, we are proud that Marcia was the recipient of our award.

Deborah Cage was an outstanding home economics student during her four years at **Saegertown Area School, Pennsylvania**. A very dependable student who got along well with others, Debby was president of the FFA, and received the State Homemakers Award.

At **St. Albans, Vermont**, recipient of the Foundation Award at **Bellows Falls Free Academy** was **Gail Snide**, one of a family of ten children. Her teacher, **Judith C. Booth**, reports that the self-confidence Gail gained during her home economics work experience at a local bakery enabled her to show great improvement in her classroom work. Perhaps her highest achievement, however, was learning to criticize her own mistakes in a healthy, constructive way, and thus strive for a more excellent finished product.

Young Men

It was unanimously agreed, at a decision of his three vocational agriculture instructors, that **Edward Tingley**, a senior, should receive the 1971 AMERICAN AGRICULTURIST Foundation Award at **Killingly High School, Danielson, Connecticut**.

In addition to performing ably in various offices in his FFA chapter, Edward has had an active program of vegetable farming, selling his produce at roadside, campsites, and doorsteps of his community. He also engaged in custom machinery work, specializing in landscape maintenance and garden preparation.

A consistently good citizen of his school, church and community, he has always been willing to put forth extra effort to see that a job was done thoroughly and well.

During the years that **Lyman Hall High School, Wallingford, Connecticut**, has participated in our award program, some unusually outstanding students have received the award, and this year we are proud to add **Peter Goodison** to the list.

Even before Peter enrolled in the three-year vocational agriculture program at Lyman Hall, he had developed an interest in the florist-greenhouse business. Since super-

(Continued on page 32)

American Agriculturist, February, 1972

**We at Geigy
realize you do
things differently
in the
Northeast.
In fact,**



what works for your neighbor may not be right for you.

You're both dairymen who grow corn for silage. And you want clean corn. But you may go about it in different ways.

One thing is certain. Unlike the midwest, your main concern is quackgrass. You have it, and your neighbor has it.

It's a tough devil, particularly on land coming out of the soil bank. Part of the reason quackgrass is tough is because it's a perennial grass. It sprouts from roots which are called rhizomes.

Try to cultivate quack out, and it just keeps on coming back. Not only in your corn, but into your alfalfa and the other crops you rotate to.

This is why cultivation, while it has a place, is just not the answer to quackgrass.

What's needed is a herbicide. Today, there are lots of herbicides, and they'll do lots of things. But only one herbicide will enable you to actually eradicate quackgrass.

That's AAtrex®, of course. All you have to do is check the labels of the other herbicides and you'll realize that this is true.

You won't just get control of quackgrass. But eradication. Gone. That's it. For 2-3 years.

The way to eradicate quackgrass is with a split-spray of AAtrex. Broadcast 1 to 3 weeks before plowing this spring. Plow, and spray again at planting.

Sure, this takes an initial investment because two sprays are needed. No way to get around that. But consider the benefits to both your corn and to the crops which follow in your rotation.

In your corn alone, quack eradication can average you four tons more silage per acre. That'll feed a lot of cows. For grain, it figures to 15 or more extra bushels.

Part of this, of course, is because you'll also be getting effective control of most annual grasses and broadleaf weeds. Like the foxtails and other grasses. And lambsquarter, morningglory, velvetleaf, smartweed, pigweed and ragweed.

The year after your split-spray, follow with corn. Go to the rate of AAtrex for annual grasses and weeds.

That's how to eradicate quackgrass. No question about it. Some dairymen learned this the hard way last year.

They experimented with a mixture of AAtrex and a non-quack herbicide. Well, it stunned the quackgrass a little, but it didn't take long for the quack to recover and you should've seen those fields, and talked with those dairymen.

What they were trying to do, of course, was to take care of fall panicum and crabgrass. These fall grasses are becoming a problem. But you can control them with the new tank mix. AAtrex plus Princep®.

Once moisture or a shallow cultivation has moved these herbicides into the weed root zone, you'll control fall panicum, crabgrass and most other annual grasses and broadleaf weeds. All the way to harvest. Plus, each herbicide is labeled for quack.

And the AAtrex-Princep tank mix will cost you \$2-3 less per acre than any other mixture of herbicides. It's safe to corn, and you can spray before planting, at planting or shortly after planting.

Just like straight AAtrex, you can spray AAtrex-Princep along with your nitrogen solution or complete liquid fertilizer. Weed 'n feed corn in one trip over the field.

Your custom applicator can handle it for you. So you can spend your time in the spring doing all the other things you have to do.

Of course, what you do depends on what fits your needs. Maybe you have fall panicum and crabgrass, but your neighbor doesn't. You may use AAtrex wettable powder while your neighbor uses the liquified AAtrex 4L.

Whatever, be sure you have the information you need. Not just some fancy claims for products which might work okay in other places. Because you're in an area with quackgrass. And there's no other area like it.

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AAtrex by Geigy



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**New 336 and 346 Balers
use gear-driven knotters and
faster plungerheads to make
less noise while baling
up to 20 percent more hay**

Meet the streamlined new 336 Baler. Sharp looking, yes—but good looks go much more than skin deep.

Eighty plunger strokes per minute teamed with a larger feed opening and faster delivery of material to the bale chamber result in a 20 percent capacity increase over earlier-model John Deere 24 Balers.

A 61-inch-wide pickup (including flares) provides intake capacity to match the giant 289-square-inch feed opening and faster plunger-

head. The pickup sets away from the bale case so the 80 teeth are usable without running tractor tires over hay.

A striking absence of drive chain spells quiet operation, low maintenance, greater dependability. Shafts and gears accurately drive the knotter. Shock-cushioning V-belts drive the pickup and feeding auger.

The field-proven equalizer hitch (optional, not shown) virtually eliminates powerline chatter and vibration on corners. It greatly

reduces powerline wear and tear.

New Hydra-Load Ejector (optional) gives you fingertip control over distance bales are thrown. Exclusive hydraulic drive is simple, smooth.

Your John Deere dealer has The Strong Silent Type on display. See him for details on the quiet new 336 and its heavy-duty big brother, the 346. He also offers convenient financing.



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to loosen
or catch...



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Laceyville, Penna. 18623

Youth abilities

(Continued from page 24)

vised work experience is a major part of the program, it was arranged that he start working for a local florist, and he proved to be a diligent and interested worker.

Through his work experience program, Peter was able to earn more than \$2,800, which was put aside to help further his education.

FFA Record

At Mount View High School, Thorndike, Maine, award winner John Heitman was unusually active in FFA, serving on committees and as president in both his junior and senior years.

He also held many top offices in 4-H, attaining the presidency in 1970-71. Earlier, he received a registered Holstein heifer for his outstanding work in 4-H, and was sheep showman and dairy showman at Bangor State Fair.

We hope that John has realized his plans to continue his education at the University of Maine.

During his four years in the vocational agriculture program at North Harford High School, Pylesville, Maryland, John Galbreath consistently rated "A's" in class and demonstrated superior accomplishments in agricultural mechanics.

In addition to providing machinery for his own project practice, he supplied equipment, parts and technical guidance for several classmates. As chapter treasurer and sentinel, he provided valuable leadership and service in many ways. John owns six Ayrshire dairy cattle and his plans were to join his father in full-time operation of their 250-acre dairy farm.

Cattle Judge

Continuous progress in scholarship and citizenship marked James Ferry's four years at Bristol County Agricultural High School, Segrean-set, Massachusetts.

He ranked third in his class academically, helped his father operate an 80-cow dairy farm, and still found time to take part in many school activities.

As a sophomore, he was secretary of his class, and also was instrumental in forming Bristol's student council. The following year, he was chosen junior class president, and was a member of the student council steering committee.

An enthusiastic FFA member, he served on the executive committee, as well as in many other capacities.

Showmanship

A record to inspire fellow students is that of Byron Johnson, Jr., of Cobleskill Central School, New York. An outstanding student in the area of dairy cattle judging, he topped every showmanship contest in his area at fairs, shows and at High School Day contests at Cobleskill College.

He was high individual at the FFA dairy cattle judging contest at the NYS Fair in 1969, and in 1970 achieved the high individual award in the National 4-H judging contest at Columbus, Ohio.

Byron has had major responsibility for managing the home farm for several years, due to his father's ill health. Nevertheless, he maintained

an enviable average in high school, taking college entrance courses, and was elected to the National Honor Society.

Byron's vocational agriculture teacher, Ray Briggs, has good things to say about his character, honesty, and personality. "Everyone likes Bud," he comments.

Organizer

At Little Valley Central School, New York, award recipient was Arthur Snow, a senior. Even though Little Valley was his home school, Arthur showed his interest in agriculture by attending Ellicottville Central School each afternoon so he could be enrolled in the farm production and management classes there.

He was active in 4-H horse shows, Young Dairy Lea Cooperators, dairy cattle judging, and all FFA activities, evidencing his interest by missing only two chapter meetings during his four years in high school. His final year's activities, as reported by his teacher, included reorganizing the dairy judging team, handling all seed sales, and "helping to hold together all the loose ends in the department all year."

Up Mexico Way

During his high school years, John MacDougall lived and worked on a beef farm and made this his farming program for the agriculture department at Mexico Academy and Central School, New York.

Although John was active in sports and played football and basketball, scholarship was his major interest, and he received a Regents diploma last June with majors in science and agriculture, and a minor in math.

John is now attending Canton Agricultural and Technical College, majoring in animal husbandry.

Agricultural mechanics, particularly tractor and engine maintenance and overhaul, has been Brian Wright's major interest at Prattburg Central School, New York.

Described by his teacher, Gerald Read, as "the type of boy who can be trusted to do a job and do it right," Brian was the top-average student in his vocational agriculture classes for two years, and active in his FFA chapter.

Capable

The qualities we look for in tomorrow's leaders are ably demonstrated by Robert Taylor, of Stockbridge Valley Central School, Munsville, New York, and he has put his capabilities to work in many ways.

He has served as secretary of his FFA chapter, as vice president of Madison County FFA, and holds the Empire Farmer Degree.

He was president of his senior class, represented his school at the American Management Association in Hamilton, and was selected for Boys All-State.

Sports were also an important part of his school career, and he participated in varsity football, basketball, baseball and wrestling.

John C. Elderkin, teacher of vocational agriculture at Walton Central School, New York, comments that "as a sophomore, Edward Budine has made the greatest progress of any non-farm student I've ever had in agriculture."

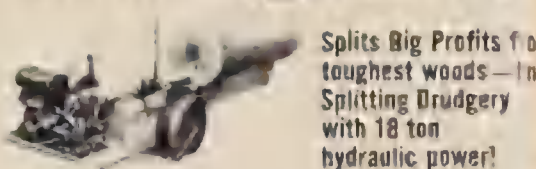
(Continued on page 33)

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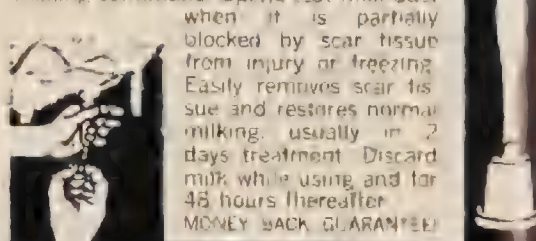
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Some Weigh 1 to 2 lbs. Each

You'll be proud of these smooth, meaty, firm, meaty flesh. Excellent for soups, stews, casseroles, etc. 1/2 price introductory offer - Reg. 50¢ pkg. only 25¢ to win new friends. FREE 80-page catalog included. Order now for spring growing.

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You will like this modern, more effective medication for Sore Teats, Tender Udders. More soothing, more softening, more penetrating to relieve soreness... Reduce infection, 25¢ a dozen and farm stores, or write H. W. NAYLOR CO., MORRIS 7, N.Y.

Dr. Naylor's UDDER BALM

American Agriculturist, February, 1972

(Continued from page 32)

Edward was Star Greenhand of his chapter in 1970, and won the Eastern Milk Producers calf award. Besides taking many star awards at local and county level in 1971, he also received the State FFA's first-place trophy for livestock conservation.

Edward's farm program was conducted at farms owned by his brother and brother-in-law, and he plans to go into partnership with his brother in the future.

Vegetable Grower

Award recipient at Warwick Valley Central School, New York, was Vincent Rudinski. A steadfast member of the FFA chapter for three years, he has served on a number of committees, been an officer, and is involved in a worthwhile farm experience program.

Vincent is his father's right-hand man on a 12½-acre vegetable farm, and showed vegetables at the county fair last year, winning many blue ribbons and cash prizes. In addition, he is producing a wide range of vegetables for home use.

HOME SWEET HOME

by Miriam J. Smithers

The dishes are piled high on the sink;
The beds are seldom made;
The dust on the stairs looks like blue mink;
The kids have not been bathed.

Ma, in her rollers; Pa, with his pipe,
Relaxed and self-assured;
Look at the world as a peach, big and ripe;
To its troubles they're quite inured.

Across the street, the neighbor so grand
With his P.H.D. on his chest
Is rushing his kids to Competitive Land;
They all must be foremost and best.

Pa's kids get their "C's" and a fair share
of "B's,"
But they'd rather be bootin' a ball.

Ma patches the shirts and the jeans at
the knees
And makes like it's nothin' at all.

The years, they go by and the families
mature

Pa's and Ma's are quite able and strong;
The neighbors' are laden with degrees
that can't cure

All the physical things that went wrong.

There's a moral, I think, about dishes in
the sink

That are better unwashed and undried;
Than all of Life's glories piled high on
the head

Of a swimmer gone down with the tide.



RUM

"That's enough rock and roll! Now go roll those rocks out of my field!"

A consistent enthusiasm for his school work, a real concern for improving the agricultural program, and a willingness to accept extra projects have marked Dale Bryant's career at Damascus Area Schools, Pennsylvania.

His leadership ability was shown in his work as president of the FFA chapter last year.

After-graduation plans were to go into the army. His vocational agriculture teacher, Kent Swartz, feels that he will be a credit to the armed services.

Keystone Stater

As a senior at Juniata Valley Schools, Alexandria, Pennsylvania, award winner Eric Stover had the highest scholastic average in his

vocational agriculture class and was president of the local chapter of the National Honor Society; he had been a member for three years.

He was vice president of his FFA chapter, and won the Keystone Farmer Degree, which is Pennsylvania's State FFA Degree.

Eric's home project consisted of beef cattle, sheep, horses, and 15 acres each of oats and wheat. With all his activities, he still found time for Archery Club, Library and Advance Science Clubs, and represented his county at the National REA Youth Leadership program in Washington, D.C.

At Essex Junction Educational Center, Vermont, the award was presented to Howard Longway, a junior enrolled in the production

agriculture program, with plans for post-high school training in agricultural business management.

Howard was active in establishing the FFA chapter in his school, and served as its president. Although he works part-time at the local Agway store, he has found time for many other school activities, as well as church and community functions.

Congratulations to all these young students who have been selected as typical of Foundation Award winners, and to all the other 1971 award winners who names do not appear here. Take stock in these young people, for the qualities that have made them leaders in their schools and communities today will continue to make them our best security for tomorrow.

START WITH 100% NORMAL CYTOPLASM XL HYBRIDS

All seed produced by DeKalb in 1971 was in 100% Normal cytoplasm. Every bag has approximately 80,000 kernels, regardless of seed size.

Profit-minded dairymen know that the hybrids bred to make big grain yields are the ones to go with for quality silage. Depend on DeKalb and follow the important cultural practices listed below.



How to make silage pay with DEKALB hybrids.

Step up your silage yields by following this field-tested program.

1. Fertilize adequately—keep nutrients in proper balance.
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3. Control weeds and insects.
4. Harvest and store properly. Start harvest when grain is fully developed around 35% moisture.
5. Plant the hybrids for silage that you'd plant for high grain yields. DEKALB XL's consistently make good tonnages of high T.D.N. silage.

See your DeKalb dealer for complete information.



XL-12

Populations: Above 22,000 at harvest for silage.
Height: Plant—medium; ear—medium.
Standability: Excellent.
Appearance: Dark green, attractive.
Maturity: Early.
Use: High T.D.N. silage.

XL-22b

Populations: 22,000 or higher for silage.
Height: Plant—medium; ear—medium.
Stalk quality: Excellent.
Maturity: Little earlier than XL-316.
Ear: Large; excellent kernel quality.
Use: Good tonnage and high T.D.N.

XL-316

Populations: 22,000 or higher for silage.
Height: Plant—tall; ear—medium.
Standability: Excellent.
Maturity: Medium.
Adaptation: Wide range of soils and seasons.
Use: Big tonnages of quality silage.

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Results: Feeding ISF ALKALINE BUFFERED Cattle Special will lessen the acidity of the rumen. This permits more complete digestion of feed and forage. It's the same principle employed in the use of buffered compounds for over-acidity in humans. Now, your herd can enjoy these same benefits!

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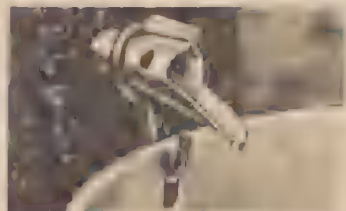
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Dollar Guide



DAIRY FARMERS of the Northeast can expect another good year in 1972 ... with predicted blend price of \$6.10 per cwt. to New York dairymen (if support price is raised). Class I use of milk will continue to decline, however, and federal government will probably purchase 9 billion pounds milk equivalent in 1972 (4.5 billion pounds in 1969).

The New England Price Forecast Committee prophesies an average blend price of \$6.40 per cwt. for 1972 ... averaging \$5.73 for April-June, \$6.65 for July-September, and \$6.85 for October-December.

EGG PRICES are forecast by poultry specialists and egg industry leaders: 38¢ per dozen for 1972 (36¢ first quarter, 34¢ second quarter, 41¢ third quarter, 43¢ last quarter).

Feed costs will probably average 1 to 2 cents a dozen less than in 1971.

INCOME TAX returns are due from farmers by March 1, changed in 1970 from February 15.

Remember that investment credit is back (up to 7 percent of equipment cost can be taken as tax credit) ... personal exemptions are up to \$675 each ... and a new form (number 4797) now supplements Schedule D for reporting gains and losses on the sale of farm property.

SECRETARY OF AGRICULTURE Earl Butz has sprung loose \$55 million of REAP (formerly ACP) funds ... previously authorized by Congress, but up to now "sat on" by the federal Office of Management and Budget.

CATTLEMEN are required by law to take cattle and sheep off rations containing diethylstilbestrol (DES) at least 7 days before marketing, and must certify in writing to the slaughterer that they have done so.

GOVERNMENT PROGRAMS for feed grains and wheat ... sign-up runs from February 3 to March 10. USDA officials changed original dates (Jan. 17-Feb. 25) to permit evaluation of Farmers Planting Intentions Report.

NATIONAL POTATO research and promotion program voted on by potato growers February 1-10. Calls for assessment of up to one cent per hundred-weight ... producers not wishing to contribute reimbursed upon written request. Producers growing 5 or more acres of spuds in 48 contiguous states eligible to vote.

EGG CLEARINGHOUSE, INC. is doing business ... operating as a price-discovery mechanism, and a pool from which egg handlers can satisfy needs for additional supplies. Contact organization at Box 518, Durham, New Hampshire 03824.

NEW YORK DAIRYMEN have until February 28 to vote in the state-wide referendum on deductions for milk promotion and research.

Hearings have been held on amending orders to increase by 10¢ per cwt. amount to be deducted from producers' returns for deliveries of milk March-June ... and returned later in the year. Plan offers incentive to maintain even milk production throughout the year.

NEW FARM CREDIT ACT is now law, and will soon be implemented. Authorizes loans by Farm Credit System for non-farm rural housing ... and loans to businesses such as custom harvesters.

Federal Land Bank can increase maximum loans on farm real estate from 65 to 85 percent of appraised value.

BLADEX is new wide-spectrum, non-residual corn herbicide from Shell Chemical Co. Available as an 80-percent wettable powder.

WINTER WHEAT crop in U.S. for 1972 predicted to be 1,291 million bushels ... an all-time record, and 11 percent above 1971 crop.

THIS IS IT!

for SORE TEATS.

The **DOUBLE-ACTION DILATOR** for SCAB TEATS

INJURED TEATS

HARD MILKERS



Use Dr. Naylor's Medicated Teat Dilators to keep teats open ... and keep 'em milking. These DOUBLE-ACTION dilators act two ways:

1. ACT MECHANICALLY—keep end of teat open to maintain free milk flow. Stay in large or small teats.

2. ACT MEDICALLY—Sulfathiazole in the Dilator is released in the teat for prolonged antiseptic action—directly at the site of trouble.

EASY TO USE ... simply keep a Dr. Naylor Dilator in teat between milkings until teat milks free by hand. At drug and farm stores or postpaid. Large Pkg. \$1.50

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604 Maple St. Dept. 75F, Barnbridge, Ohio 43806

American Agriculturist, February, 1972



bright-eyed calves

HERE are some recommendations from Donald Ace, dairy specialist at the Pennsylvania State University, for raising healthy calves:

Maternity pens should be cleaned between calvings and not be used for housing other livestock. In warm weather, a clean grassy paddock is best. Sanitation practiced on a daily basis is Number 1 against outbreak of disease. With respectable sanitation, and as much as two weeks to 30 days break in the inhabitation pattern, calf losses can be controlled within acceptable limits.

Sanitation is best accomplished by complete removal of all refuse, and scrubbing the cleaned surfaces with any good dairy sanitizer such as may be found in most milk houses.

Clean Hands

When a dairyman is serving as "midwife," a pail of warm water with a good sanitizer added should be sitting nearby. Wash the hands before checking the calf's mouth for mucous and membranes. Cut off the umbilical cord at about 4 to 6 inches and dip the remaining stump in iodine, mercurchrome or a dairy sanitizer. This seals the tiny capillary tubes of the cord with a slug of protection against organism entry. Then wash the cow's udder and teats with a sanitizing solution before milking or allowing the calf to nurse.

Colostrum contains antibodies for all diseases to which the cow has been exposed, and will provide up to 30 days of protection for the calf, at which time it becomes capable of developing its own. The factors affecting the best absorption of these antibodies are: (1) immediacy of intake following birth, and (2) amount of intake. Too late with too much lowers the calf's ability to fully use the built-in protective capabilities of colostrum. Overfeeding, or flooding of the gastro-intestinal tract in early life, can reduce antibody absorption and predispose to digestive upsets.

Regardless of how the calf is fed, sanitation of all feeding utensils is necessary. Any good dairy sanitizer used on milking equipment is acceptable. These iodophors or quater-

nary ammonia compounds are low-cost and very effective.

Nipple bottles assist in controlling the amount of intake better than open-bucket feeding, and either one is more acceptable than allowing the calf to nurse the cow. Many high-producing cows will provide enough colostrum in three days to feed their calves for three weeks when dispensed in acceptable amounts.

Liquid feeding programs may be varied, depending on the incidence of disease... and the economics involved. If there are few calf health problems, feed a lower-cost milk replacer containing some ingredients from vegetable sources. Problem situations encourage the use of an all-milk product with at least 10

percent fat. Whole milk may be called for in really bad situations.

Once-a-day feeding is no panacea unless real savings in labor can be had, and then only if calves have been fed normally for the first week and no problems exist.

Weaning can occur at almost any time the calf is eating forages plus 1½ pounds of grain a day. Continued feeding of milk replacer or milk often delays the date when this level of dry feed intake is reached. However, if a generally unthrifty calf has not adjusted to a dry feed regime by 60 days of age, this may be the first time to think about culling it.

Usually, any fine-stemmed, leafy hay with a 16-percent-protein grain

(Continued on page 37)

Announcing a new LOW PRICE on McCulloch's Power Mac 6 Automatic was \$199⁹⁵*

now \$159⁹⁵**



McCulloch has the right saw, at the right price for every farm need. If you use a chain saw a lot, and do most of the work yourself, the Power Mac 6 Automatic is the saw for you. It's so light (only 7 lbs.†) you can run it all day — without running yourself ragged. Yet it delivers the extra power you need to zip through every job faster. It automatically oils its own 14" bar and chain as you cut, to extend the life of the parts. And the new \$159.95 price tag is our lowest price ever.

For power, weight and price, you just can't beat the Power Mac 6 Automatic. Ask your dealer about the new low prices for matching McCulloch chains, bars and sprockets.

McCulloch Mini Mac 6. The world's lightweight, at our lowest price ever.

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This saw weighs only 6½ lbs.† It's so light and maneuverable, it's almost like using an electric carving knife. Yet thousands of farmers have found it has all the power they need, for all their day-to-day jobs. At this low price, complete with 12" bar and chain, it's your best chain saw buy.



*With 16" bar.

**Manufacturer's suggested list price complete with factory assembled bar and chain.

†Weight less cutting attachments

McCulloch Mac 10-10 Automatic. Big power for the toughest farm jobs.

\$174⁹⁵**

This saw will work harder than you do! Rugged 55 cc (3.3 cu. in.) engine has the big power for tough jobs. Yet at 11½ lbs.† it's a true lightweight, easy to carry and easy to cut with. Oils its own 16" bar and chain automatically as you cut.

For your nearest McCulloch Dealer, see the Yellow Pages under "Saws".

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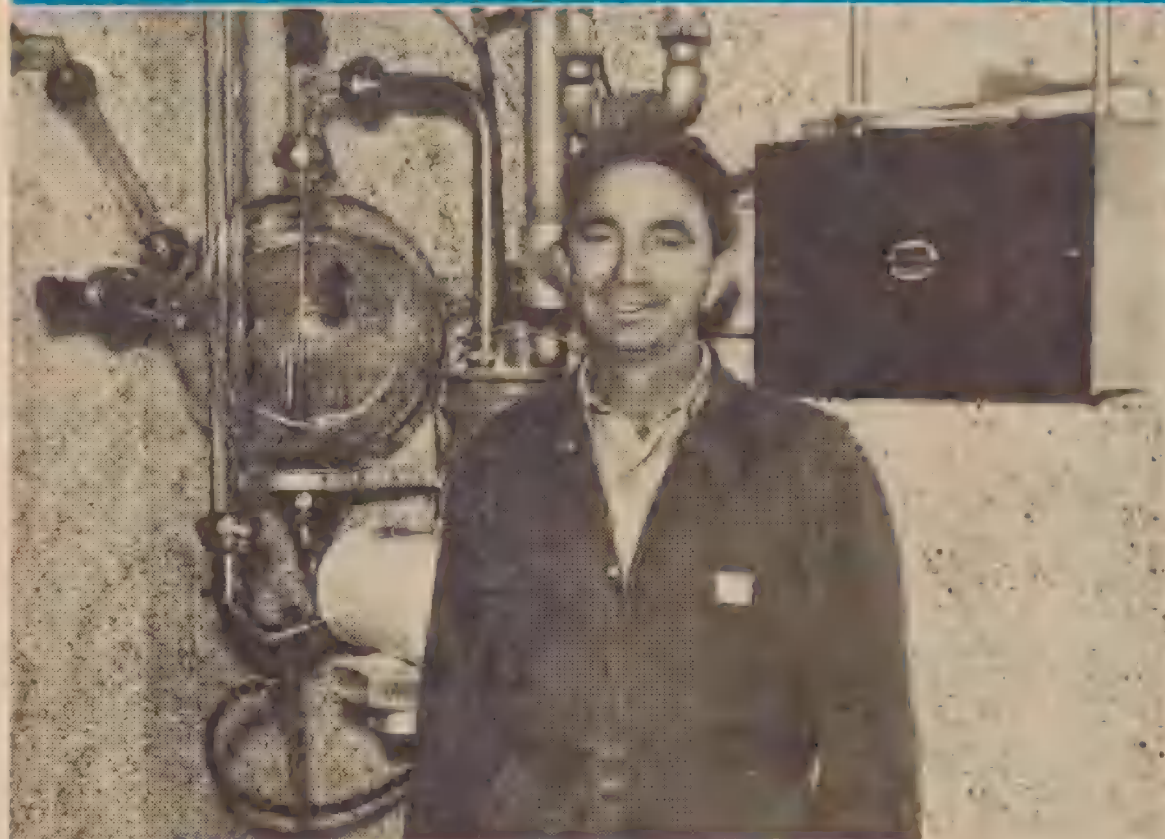


"Mabel and I never squabble. She goes her way and so do I."

American Agriculturist, February, 1972

"My BOU-MATIC Parlor Is The Best Investment On The Farm!"

Writes HARRY A. MEYERS, R1, Greencastle, Pa.



Read MR. MEYERS' Letter—

"I am pleased with my Bou-Matic Milking Parlor because our milk production is good and the udder health of my herd is excellent.

I believe my milking parlor is the best investment on the farm. I handle 40 cows alone easier than two of us milked 28 cows in our old barn.

Many people come to see my new parlor and I certainly recommend Bou-Matic to them!"

Harry A. Meyers

These BOU-MATIC Features Can Help You Enjoy BETTER RESULTS!

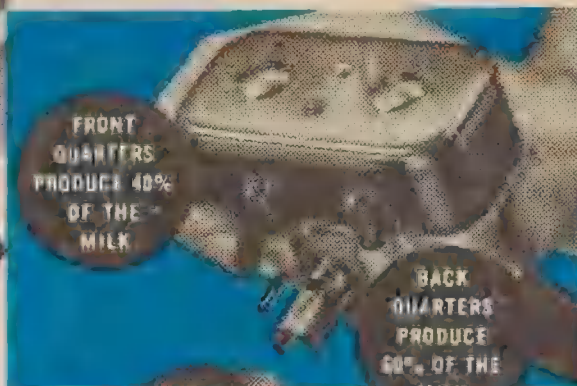


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ALTERNATOR PULSATOR

milks front and back teats more evenly, reducing udder irritation.

VISI-CLAW lets you see when milk flow stops for prompt removal of teat cups. Helps prevent over-milking. Reduces irritation.



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FRUIT



Apple Harvester — A new type of apple harvester designed to pick bruise-free apples for fresh market has been developed and built by a group of Cornell University agricultural engineers headed by William F. Millier and Gerald E. Rehkgler.

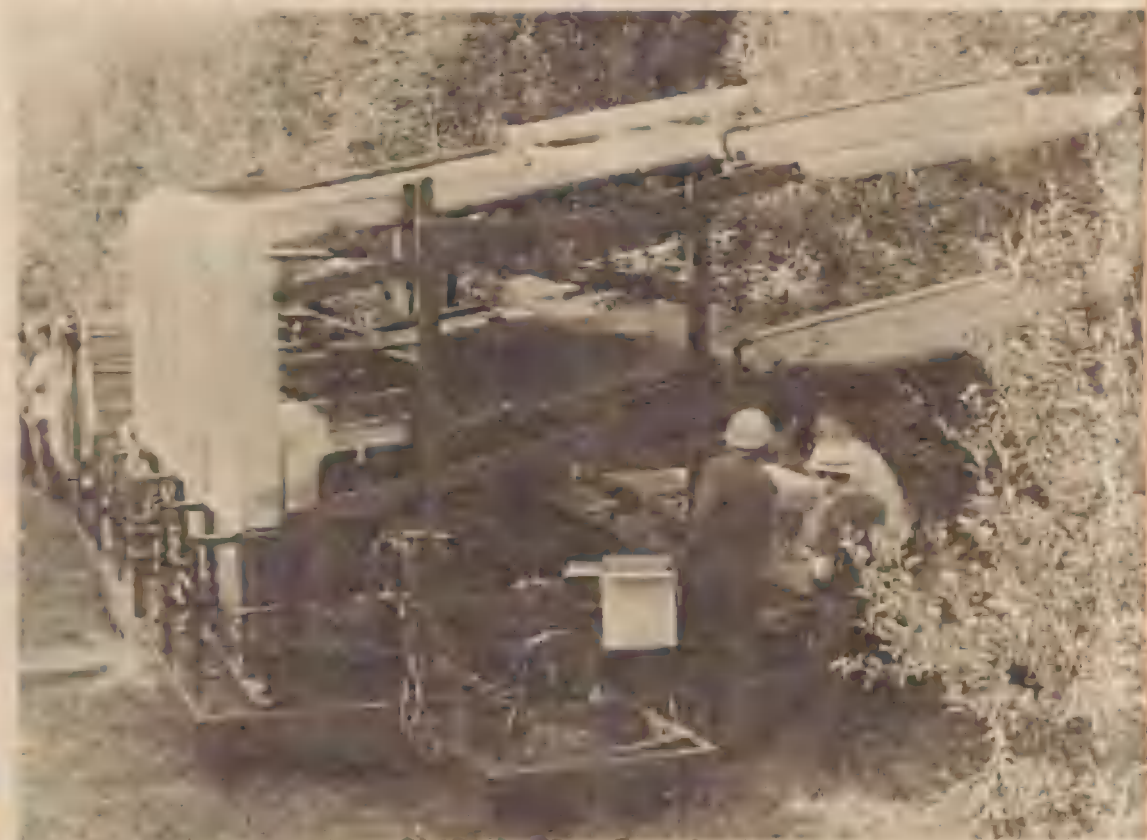
The harvester, first of its kind in the country specifically designed to harvest tender apple varieties, has three frames for catching fruit. The bottom frame is rubber-padded for use at the bottom of the tree. The other two are padded with inflatable

plastic bags which can be inserted into the tree to form "air mattresses" to give the apples a soft landing.

The machine is designed to tackle small trees, not big ones, in anticipation of more plantings of semi-dwarf varieties in years ahead.

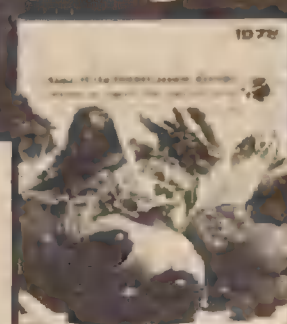
Fruit Growing — Dwarf fruit tree growers and nurserymen can keep up to date on the latest practical information on rootstocks, culture, varieties, dwarfing techniques and many other growing methods by belonging to the Dwarf Fruit Tree Association. To find out about the organization and how you can benefit from membership, write to the Association at: P. O. Box 143, Hartford, Michigan 49057.

Cornell's new experimental apple harvester undergoes tests at the university's apple orchards.



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VEGETABLES—FLOWERS—
ORNAMENTALS
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ROBSON QUALITY SEEDS, Inc.
P. O. Box 622 Hall, N.Y. 14463

(Continued from page 35)

mixture is sufficient for dry feed. However, when problems exist, it is advisable to adjust the protein level in the grain to 20 percent.

If calf scours become a problem, it is advisable to replace milk feeding with an electrolyte solution. It reduces the milk medium on which virulent organisms thrive, and protects the calf against dehydration.

Calves need dry and draft-free quarters. Low humidity is far more important than actual temperature. Cold becomes a problem only when animals become sick, or when humidity is high.

Ventilation

If added heat is used, insulation values become critical. Usually 3 to 4 inches of glass fiber is enough in the sidewalls and 4 to 6 inches in the ceiling. Use a vapor barrier on the warm side of the insulation. A fan becomes a must, especially with heated systems, to remove water vapor from the barn, even though it may seem wasteful to blow the warm air out of the building. Without it, you will kill more calves than if they were outdoors.

Stress becomes evident any time the sum of temperature and humidity exceeds 150.

Draft-free ventilation is a must. In many situations, the plastic convection tube . . . tied in with fan, heater, automatic shutters and thermostat . . . has given the most uniform temperature and air distribution system.

Individual calf tie stalls equal fewer management problems, if they are accompanied by good environmental conditions. After calves have been weaned for at least two weeks, they may be housed in community pens.

Basic Principle

One basic sanitary principle . . . feeding and watering cattle so that the feed and water remain free from manure contamination . . . should apply throughout their lives. Free-stall loose housing, where the animals go to a private stall to lie down, is highly satisfactory for calves from the time they are removed from the individual tie stalls. Because bedding is scarce and expensive, free-stall housing offers one of the best methods for keeping cattle clean. These facilities will not manage themselves, but they do allow management to function at its best.

Regardless of any management system used, one cannot over-em-

phasize sanitation. During . . . and even after . . . the animals are grown, it remains critical. So often we find uneaten grain piling up in small layers in feed boxes or mangers. This grain is wet from water bowls and saliva; it invites mold growth and the development of the deadly mycotoxins. It rots and sours . . . and, at best, serves to reduce feed intake and increase feed wastage and costs.

Let us not forget dehorning at a couple of weeks of age. My preference is an electric dehorner heated to cherry-red condition. Horns are totally useless on modern cows.

Extra teats are of no value, and often cause problems other than mastitis. Remove them as soon as you can tell which ones are for real.



HANDY for Farm and Home

Scraper—A plastic or rubber plate scraper (an old spare from the kitchen that the cook won't miss will do nicely) makes an excellent trowel for applying small amounts of plaster in a patching operation. The soft edge of the scraper will smooth the plaster over the hole without leaving streaks or grooves.

Shelves—Use half-inch pipe and regular pipe straps to construct heavy-duty shelves in barn or garage. Bore half-inch holes into studding to receive the ends of the pipes . . . which should be about 10 inches long for a six-inch shelf . . . and secure the pipes to the underside of the shelving material with the straps.

Drilling—When drilling a bolt hole through wood or metal, use the nut for the bolt that will go in the hole to aid in selecting the proper bit for the drill. The bit that just passes through the nut is the correct bit to use.

Vise—A hand or power drill can be used as an emergency vise to hold a nail or bolt for hacksawing in two. Merely tighten nail or bolt in the drill's chuck and place the drill on a solid surface for sawing.

Non-Splinter — When boring a hole entirely through a piece of wood with a hand brace, bore until point of the bit breaks through and can be felt on the other side. Then turn the board over and drill from that side. This prevents splintering around edge of the hole when the bit breaks through. Another way to avoid splintering the wood, if you have C-clamps or a vise, is to clamp a block of wood directly behind the piece through which you are boring.

Lid Handle — The handle of a toolbox that lies flat on the toolbox lid can be difficult to grasp, especially when you're wearing heavy leather gloves. To elevate the handle slightly, wrap each end of it with several layers of electrician's tape.



"That won't be necessary, Mr. Grub!"

American Agriculturist, February, 1972

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SEED CORN

"LEADER" HYBRIDS BEST
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3773

Producer of hard textured grain. Develops excellent stalks. Has excellent seedling vigor necessary for fast plant development in the spring. Silks early for its maturity. Excellent combiner, too. Proven performer for a number of years.

3956

This hybrid and its counterpart, 3956A, are similar except in maturity. 3956 is around 3 days earlier than the "A" version. Average height plants with very attractive ears. Excellent combine corn.

3959

Same maturity as 3956. Excellent yielding corn at normal or high populations. Outstanding root and stalk strength. This proven performer has very good stress tolerance.

3853

This new double cross is replacing 3854 and 388. Has an impressive yield record, even when compared with outstanding single cross hybrids of the same maturity. Has outstanding stalks.

Excellent hybrids available in all maturities. Check with your Pioneer man for complete information.

MORE ORDERS THAN EVER BEFORE . . . Farmers plan on planting 17 million acres of Pioneer corn this spring.



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 <p>1</p> <p>PICK</p> <p>A ton of rocks in 15 minutes with the WESTGO Heavy-Duty Hydraulic Rock Picker. Operate with any two- or three-plow tractor.</p>	 <p>2</p> <p>LOAD</p> <p>Into 4-foot hopper that carries 2,000 pounds. Operator has full visibility at all times. Unit locks during transport.</p>	 <p>3</p> <p>DUMP</p> <p>Anywhere in slough or corner of field. Unit weighs 1,000 pounds, is 7-ft., 11-inches wide, 10-ft., 6-inches long.</p>
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Pioneer is a true hybrid—quick-growing, uniform and productive. It is smooth, attractive and richly colored, and best of all, its sweet flavor and brittle texture are second to none. Available only from Harris Seeds.

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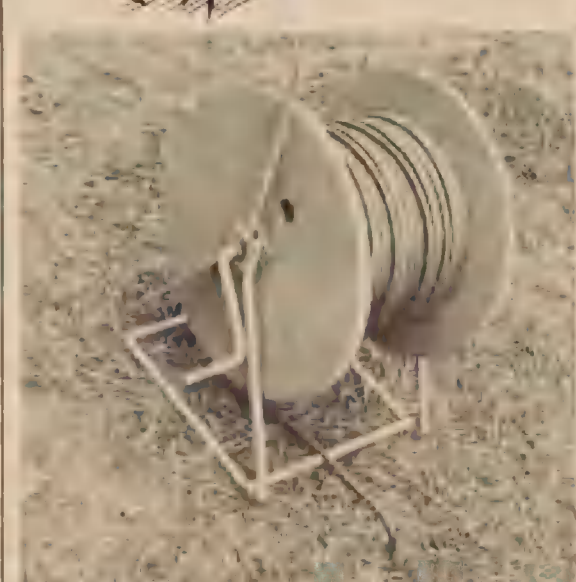
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HANDY on the Farm




Coiled — A 100-foot electric extension cord is mounted on a plywood spool in a welded bracket which prevents tangles, kinking and stringing out more than is needed. It is handy for work with electrical tools outside the shop.




Mailbox Stand — A farm implement wheel with the hub cut away and replaced by the owner's initial in welded chain makes an attractive mailbox stand. Wheel is welded to a pipe post set in a 5-gallon can of concrete for the base.



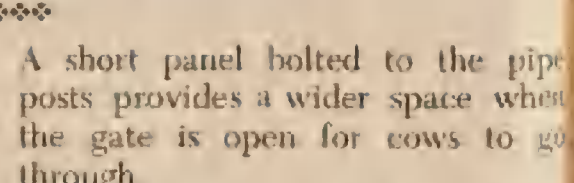
Up Front — A strong bumper, welded from pipe and larger well casing, mounted on the front of the tractor is a protection to the grill and radiator. It's also useful in pushing small hog houses, feeders, wagons, etc.




Bin Slides — Sheet metal slides fastened to pipes for handles hung at the ceiling end make it possible to quickly open the throats of the double overhead feed bin. The feed cart is soon filled and amount can easily be regulated.



Heavy Latch — A U-shaped welded latch of heavy iron shaft or rod with unequal-length legs makes a good latch for iron gates... especially in the dairy barn. Sockets of short pipe are welded to post and gate.



Tire Gate — Old tires, filled with concrete around a pipe for a post, come in handy for temporary fences around the barnlot, or for gates.



4847. Wear the coat over shirt, pants. PRINTED PATTERN, New Women's Sizes 34-48. Size 36 (bust 40) coat 2 7/8 yds. 45-in. . . . 50 cents

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9109. Sew three! Tunic, pants, dress. PRINTED PATTERN, New Half Sizes 10 1/2-20 1/2. Size 14 1/2 (bust 37) outfit 3 3/8 yds. 35-in. . . . 50 cents

4847
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4911
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4796
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9140 10 1/2-20 1/2

9165
10 1/2-22 1/2

9180
10 1/2-20 1/2

4897
2-8

9018
10 1/2-22 1/2

4965 34-48

7420

9020
12 1/2-22 1/2

4965. Skimmer with slender lines. PRINTED PATTERN, New Women's Sizes 34-48. Size 36 (bust 40) takes 2 3/8 yds. 45 in. . . . 50 cents

7420. INSTANT KNIT cabled cape for Spring. Use bulky yarn, big needles. Knit the yoke first. One size fits Misses' 8-16. . . . 50 cents

9020. Slimming hiplines seams. PRINTED PATTERN, New Half Sizes 12 1/2-22 1/2. Size 14 1/2 (bust 37) takes 2 1/4 yds. 45 in. . . . 50 cents

964. Crochet attractive squares. Join in flat pieces for coat or jacket. Use 3-ply fingering yarn. Misses' 10-16 included. . . . 50 cents

764. Quick-knit vest, jacket, skirt—with, without fringe trim. Use big needles, bulky yarn. Sizes 4-14 included. Directions. . . . 50 cents

9180. Pretty quick-sew skimmer. PRINTED PATTERN, New Half Sizes 10 1/2-20 1/2. Sizes 14 1/2 (bust 37) takes 2 1/4 yds. 45 in. fabric. . . 50 cents

9165. Curve yoke atop slims shape. PRINTED PATTERN, New Half Sizes 10 1/2-22 1/2. Size 14 1/2 (bust 37) takes 2 3/4 yds. 35 in. . . . 50 cents

7338. Give a room a new look with puff pillows. Join 6" x 6" scraps or solid fabrics. Printed tissue pattern pieces included. . . . 50 cents

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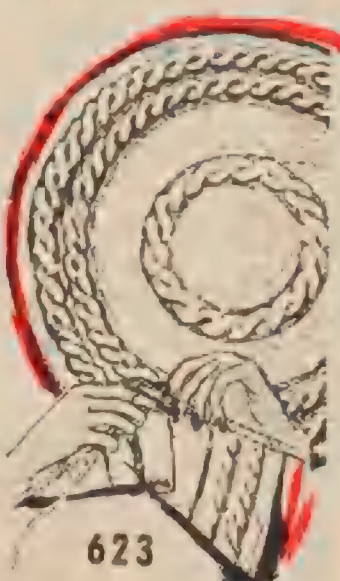
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'round the kitchen

with Alberta Shackelton



February brings many days associated with special foods. Below are a different version of the usual cherry pie and a cake "log" to celebrate birthdays of two famous Presidents, also two chiffon pies which are truly elegant enough for any Valentine meal.

CHERRY-ALMOND PIE

- 1 unbaked flaky pastry shell with high fluted edge
- 1½ cups sugar
- 3 tablespoons quick-cooking tapioca
- Dash salt
- 3½ cups canned pitted tart cherries (water pack), drained
- ¾ cup cherry juice
- ½ teaspoon almond extract
- 2 tablespoons butter
- Whipped cream

Combine sugar, tapioca, salt, cherries, juice and almond extract. If you wish, add a few drops of red coloring to tint a delicate red. Let stand 15 to 20 minutes. Fill unbaked pastry shell and dot with butter.

Bake in a hot oven (425°) 40 to 45 minutes, or until pastry is nicely browned and filling thickened. Remove from oven and cool. At serving time, form a criss-cross topping with whipped cream, slightly sweetened.

Note: Thawed and drained frozen cherries may replace the canned ones. Reduce sugar to ½ to 1 cup. For a crunchy topping instead of whipped cream, sprinkle a crumbly mixture made with ¾ cup sugar, 2 tablespoons flour and 2 tablespoons butter over the cherry-filled shell before baking.

LINCOLN LOG

- ¾ cup sifted cake flour
- ¾ teaspoon baking powder
- ¼ teaspoon salt
- 4 eggs (at room temperature)
- ¾ cup sugar
- 1 teaspoon vanilla

Chocolate Filling and Frosting

Sift together the flour, baking powder and salt. Beat eggs at high speed in electric mixer, adding sugar gradually. Beat until mixture is fluffy, thick and light colored. Gradually fold in the flour and then the vanilla. Pour batter into a 15×10-inch pan, greased lightly on bottom and sides, then lined with lightly greased waxed paper. Bake in a preheated hot oven (400°) for 13 minutes.

Loosen sides and turn cake onto a towel, lightly sprinkled with confectioners' sugar; quickly remove paper and trim off crusts of cake. Place fresh piece of waxed paper over cake and roll up quickly, towel and all. Cool, unroll and remove paper.

Spread with Chocolate Filling and roll up again, leaving end of cake underneath. Completely cover with Chocolate Fluffy Frosting from pastry bag fitted with a saw-toothed tube, or spread on with a spatula and then striate with tines of fork to simulate bark of tree. Make knots by frosting pieces of cake from trimmed edges and attach these to log with additional frosting.

To make **Chocolate Filling**, combine 1 package chocolate pudding and pie filling (not instant kind) with 1¾ cups milk. Cook and stir over medium heat to full boil. Remove from heat and cool with occasional stirring.

To make **Chocolate Fluffy Frost-**

Gradually bring mixture to a full boil, stirring gently and constantly with spatula over medium to high heat. Reduce heat slightly as mixture begins to thicken and boil slowly for 1 minute. Remove from heat and stir in grated lemon peel and food coloring if used. Pour hot filling into

whites, ½ teaspoon cream tartar and ½ cup plus 2 tablespoons sugar. Follow same directions for making both pies.

APRICOT CHIFFON PIE

- 1½ cups graham cracker crumbs
- 2 tablespoons sugar
- 1 stick (½ cup) butter, melted
- 1 tablespoon unflavored gelatine (one envelope)
- ¼ cup sugar
- ½ teaspoon salt
- 3 egg yolks, beaten
- 1 cup buttermilk
- 1¼ cups apricot puree (cooked and sweetened dried apricots)
- 3 egg whites
- ¼ cup sugar

Combine graham cracker crumbs and sugar, add melted butter and blend well. Press firmly against sides and bottom of a 9-inch pie plate to form a thin crust. Chill in refrigerator for several hours before filling.

Combine gelatine, sugar and salt in top of double boiler; add egg yolks and buttermilk. Cook over boiling water only until slightly thickened and gelatine has dissolved. Remove from heat, blend in apricot puree and chill in refrigerator until cool and slightly thickened.

Beat egg whites until soft peaks form and gradually beat in sugar until a stiff meringue forms. Fold in apricot mixture carefully but thoroughly. Pour into chilled pie shell. Chill several hours or overnight. Top with slightly sweetened whipped cream "dollops" around edge of pie and decorate with thin slices of dried apricots.



Photo: Leo Burnett Company

Cherry pie is an all-time favorite American dessert. We think you'll like this slightly different version with criss-cross whipped cream topping.

ing, cream ¼ cup butter, add ¾ cup confectioners' sugar gradually, and blend well. Add 1 teaspoon vanilla, 2 squares unsweetened chocolate melted and cooled, and dash salt, mixing well.

Beat 2 egg whites until stiff and add ¾ cup confectioners' sugar, 2 tablespoons at a time, beating after each addition until blended. Continue beating until mixture stands in peaks. Fold gently but thoroughly into chocolate mixture to blend well.

FRESH LEMON MERINGUE PIE

This recipe for Lemon Meringue Pie uses Sunlist Growers' new easy and quick method for making a perfect pie.

- 1 baked 9-inch pastry shell
- 1½ cups sugar
- ¼ cup plus 2 tablespoons cornstarch
- ¼ teaspoon salt
- ½ cup fresh squeezed lemon juice
- ¼ cup cold water
- 3 egg yolks, well beaten
- 2 tablespoons butter
- 1½ cups boiling water
- 1 teaspoon fresh grated lemon peel
- Few drops yellow food coloring if desired
- 3 egg whites
- ¼ teaspoon cream tartar
- 6 tablespoons sugar

Filling — Combine sugar, cornstarch and salt in 2 to 3-quart saucepan. Gradually blend in cold water with a wire whisk, then lemon juice until smooth. Add beaten yolks and blend thoroughly with whisk; add butter. Add boiling water gradually, stirring constantly with rubber spatula.

baked pastry shell. Let stand, allowing a thin film to form while preparing meringue.

Meringue — Beat egg whites (should be at room temperature) until frothy. Add cream of tartar (1 teaspoon fresh squeezed lemon juice may be substituted for the ¼ teaspoon cream tartar). Beat on high speed until soft peaks form. Reduce speed to medium while adding sugar gradually, about 1 tablespoon at a time. Return to high speed and beat until whites are fairly stiff but still glossy with soft peaks.

Place meringue on pie filling in several mounds around edge of pie. Push meringue gently against inner edge of pie crust, sealing well. Cover rest of filling by swirling meringue from edge to center of pie, forming decorative peaks with spatula.

Bake in moderate oven (350°) about 10 to 12 minutes, or until light brown. Cool on wire rack at room temperature, away from drafts, for at least 2 hours before cutting and serving. Use a sharp knife and dip into hot water after each cut for a perfect "clean cut" serving.

Note: For a really spectacular pie with a "mile high" meringue, follow Sunlist's directions for their "Bean Catching" Lemon Meringue Pie. Make these changes: In the filling, use ¼ cup plus 2 teaspoons cornstarch, ¼ cup plus 1 tablespoon lemon juice, 5 egg yolks well beaten, 1½ cups boiling water, 1 to 3 teaspoons grated lemon peel.

For the meringue: Use 5 egg



NEW NEEDLECRAFT CATALOG

It's fun to choose from the dazzling array of lively crafts and patterns in our 1972 Needlecraft Catalog. You'll see the newest fashions to knit and crochet — fancy pants, mini jumps, jackets, scarves, vests, hats, ponchos and pantsuits in all sizes.

There's lots to embroider, quilt to sew, ideas for fascinating window treatments and slipcovers. Three FREE patterns are included right in the Catalog!

To order catalog, send 50 cent in coin to AMERICAN AGRICULTURIST Pattern Dept., Box 42, Old Chelsea Station, New York, New York 10011

American Agriculturist, February, 1972

DO YOU HAVE . . .

Small pieces of material left over from sewing projects that could be used for quilt blocks? Miss Nora Deegan, 30 Reynolds Ave., Stamford, Conn. 06905, says she would gladly pay postage.

A similar request comes from Mrs. Clarence Pitt, R.D. 1, Dalton, N.Y. 14836.

A recipe for a baked apple pudding called "apple grunt"? This request comes from Mrs. Elvin Beardsley, R.D. 6, Ithaca, N. Y. 14850.

The pattern for the "Burgoyne" quilt? It is sometimes called "Burgoyne Surrounded" or "Burgoyne Surrendered." Mrs. Emily Ritter, Friendship, New York 14739, would like very much to find this pattern.

A recipe for an apple pudding which uses bread dough and is steamed on top of the stove? Miss Virginia Slocum, Box 101, Westport, Pa. 17778, sends in this request.

Any idea where Mrs. Edith Critchlow, Route 4, Slippery Rock, Pa. 16057, can get parts for her Home Profit Knitting Machine? It was purchased in 1929.

Daguerreotype or tintype photos you would like to dispose of? This request comes from Carlton Cobb, 196 Riverside Drive, Tiverton, R. I. 02878.

A good recipe for Pork Cake? John D. Clawson, Buck Hill Road, Shaftsbury, Vt. 05262, would like to swap it for his which is an old family dessert.

Any figure napkins rings you would consider selling? Mrs. John Thompson, Box Q, Tully, N. Y. 13159, sends in this request.

Old post cards or pictures from Whately or Deerfield, Mass.? If so, please get in touch with Mrs. Cecil Dickinson, R.D., Haydenville, Mass. 01039.

Any ruby glass tumblers with rim around bottom to match sherbets?

B. B. White, R.D. 1, Deposit, N. Y. 13754, needs three or more.

A pattern for the elephant made from plastic bleach bottles printed in "Better Homes & Gardens" in 1964? Mrs. Gordon Hoselton, Box 331, Brownville, N. Y. 13615, would like it.

A copy of McCall's "Needlepoint for Beginners"? If so, will you please contact Mrs. E. S. Bateman, 12 Charles St., Ilion, N. Y. 13357.

Cups and saucers for a set of "Lady Hamilton" Community China, made in Bavaria? Mrs. Fred A. Holsten, R.D. 1, Monmouth Junction, N. J. 08852, would like to obtain some.

Woolen remnants, both suit and

coatweights, you would sell to Mrs. Linwood R. Decker, Sunnyside Ave., Pottstown, Pa. 19464?

A recipe for an English Beef and Suet Pudding that is steamed three hours? This request comes from Mrs. George Gay, 53 Moeller St., Binghamton, N. Y. 13904.

A copy of "The Art of Cooking Made Plain and Easy" that is no longer being used? Mrs. Richard Beyer, R.D. 2, Central Square, N. Y. 13036, would like to obtain this book.

Pieces of pressed glass in "Check-board" pattern you would part with? If so, please write Mrs. Richard Hovey, R.D. 1, Hannibal, N. Y. 13074.

A copy of "Country Flavor Cook-

book" by Haydn Pearson you would consider selling? Mrs. Earl P. Channey, R.D. 1, Freeport, Maine 04032, would very much like to get this book.

GOLDEN MEMORIES

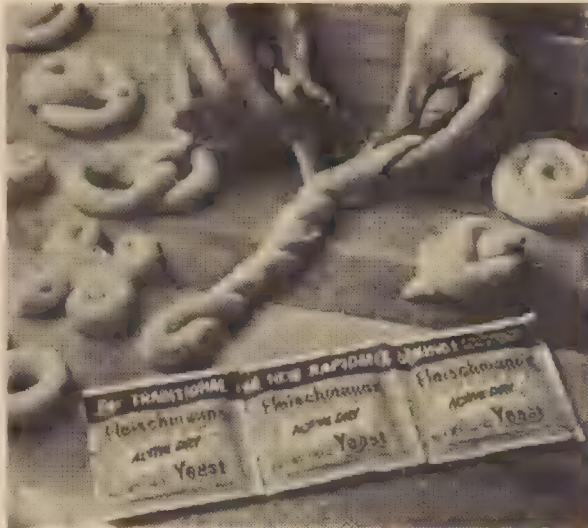
by Roy Z. Kemp

Keep golden memories within your heart
To draw upon when days are cold and bleak.
Hold them like cherished things; set them apart
From things you would forget and never seek.
These golden memories will keep you warm,
So hold them dear and help each one survive
The heartless, cruel stress of each day's storm.
All fragile things need love to stay alive.



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Bring SPRING Into Your Home

by Dorothy Welty Thomas



PART ONE

If you really want to "get the jump" on spring, you should begin early — February is just fine — to cut branches of forsythia, lilac, flowering plum, crab, or just about anything that blossoms and bring them into the house and force them. Place them in a container of cool water at first, then later in warm water and preferably in a dark place. Your root cellar would be good, if you have one.

The earlier you cut the branches, the longer it takes for them to show color, so have patience. If cut just before their natural blooming schedule, they will come out quickly. Lilac will not blossom, but will put forth lovely little green leaves that give your house the touch of the hoped-for season.

One of my fondest recollections of spring on our farm near Lounsberry, New York, is going to the cow pasture with a trowel and scooping up the first clumps of meadow bluets. Some people call them forget-me-nots, but they are not the cultivated forget-me-nots. They are smaller, but if you find a clump growing where there have been droppings, chances are the blossoms will be almost a solid mass of lavender-blue.

Get a clump of bluets as big as a pyrex pie plate and put them in it. Add a little water occasionally, and you may be able to keep them a couple of weeks. You may do the same with wood violets or other wild flowers and then plant them in a shady spot in your garden or yard after the blossoms are gone.

Pussy Willows and Myrtle

Pussy willows are just about the first harbinger of spring, appearing while there is still snow on the ground. Pussy willows may be bent

or curved to make a graceful line in your arrangement, or used as straight spikes for height. Myrtle vines in your yard or woodlot may also bloom before snow is gone. Pick the pretty blue flowers, cut some short lengths of the vines and make miniature bouquets. Later you may combine them with other tiny flowers, such as yellow violets, etc.

Arrange your loot from woods or field with care. A bit of green is always an asset. You may use evergreens of any kind at any time of the year. If you don't have a mahonia bush in your yard, you should plant one. It is more popularly known as Oregon Holly and has broad evergreen leaves with sharp spines at the ends of the main veins.

There are two varieties of Oregon Holly I know of — one with dark green glossy leaves and another with dull green leaves, sometimes tinged with red or brown. Both varieties branch nicely for arrangements and have clusters of little yellow flowers in springtime. By Christmas, there will be sprigs of blue berries which look beautiful laid flat around your Swedish Christmas chimes — but this article is about spring! Use mahonia, laurel, rhododendron, or any of the pine family for green with your spikes of pussy willow and forsythia.

If you are near a supermarket, they may sell daffodils as early as January or February and as cheaply as \$1.00 per bunch. A bunch of these

(Continued on next page)

A woodsy moss garden for a special place.



It has always seemed to me that February runs a close second to July in being the "patriotic" high spot of our year. What really great men George Washington and Abraham Lincoln were! How tragic that we don't have a few statesmen of their caliber today instead of just politicians!

I can't help wondering what their thoughts would be and how they would react if it were possible for them to come back to the United States in this year of 1972. We've seen things happen in our country in just the last 15 years that I wouldn't have believed possible if I hadn't seen them take place.

Edward Gibbon, a famous British historian of the 18th Century, gave the following reasons for the decline of the Roman Empire —

1. A rapid increase in divorce
2. Higher and higher taxes
3. The intense craving for pleasure
4. An emphasis upon armaments when the real enemy was the internal decadence of the people
5. The decay of religion, with faith becoming mere form

Does this sound anything like modern-day America?

Original Re-useable Container

I was amused at the annual Dairy-lea meeting last fall when someone asked the "panel of experts" why butter wasn't packaged in re-useable containers. No one seemed to know just why this hadn't been tried, and then one member of the panel spoke up (I believe it was Jim Donnan), "It started out that way; the container was called a crock."

New Regulations for Meat

Chicken steak? His and her steak? California roast? Do such fancy names at the meat counter confuse you? If so, you'll be glad to know that after April 1 such names will be prohibited in New York State. Far more accurate and detailed labeling and advertising of meats sold at retail will be required after that date, as a result of recent action taken by the State Department of Agriculture and Markets. Briefly, here are some of the new regulations —

All meat products must bear a label.

The label or advertisement must give the true name of the product (the primal cut from which it is derived); fanciful names will not be allowed.

Chopped and shaped meat products which have added fat, cereal or water must be so labeled. If they have been frozen, this must also be noted. Meats which have been chopped or shaped into a steak or patty must list all ingredients and the percentage of each.

Fabricated beef steaks, veal steaks, etc., cannot contain more than 30 percent fat and may not contain added water.

And one last regulation which

I'm sure will please every home-maker in the State — Meat cannot be advertised for sale unless a sufficient quantity is on hand to meet reasonably anticipated demands. How many times we've looked forward to a good buy on meat, only to find the ad was just a "leader" item, and the small quantity had been sold out when we reached the store!

It seems to me these regulations make sense and will be helpful to every family in the State.

No DDT — Gypsy Moth Thrives

The U.S. Department of Agriculture reports that last year gypsy moth caterpillars caused light to severe defoliation of approximately 2 million woodland acres in nine Northeastern States. This is twice the acreage defoliated in 1970 and more than six times the 1969 damage. About one-quarter of the two million acres was severely defoliated.

In the caterpillar stage, gypsy moths strip the leaves from forest shade and fruit trees, as well as ornamental shrubs. A single defoliation can kill white pine, spruce, hemlock and other softwood trees; two defoliations can kill oak and some other hardwoods. Moth populations were being held at a low level until our environmental enthusiasts caused the discontinuance of DDT treatments in 1968!

Would You Believe Electric Carpets?

A recent issue of *College & University Business* asked what classrooms of the future would be like. A fascinating answer stated that the recently invented electric carpet is capable of sending an electrical power supply and/or audio-visual signals throughout a building.

We quote, "With this electric carpet, you will be able to receive electric power, sound and pictures at any point in a school without being bound by fixed floor or wall power outlets, long extension cords or antenna wires — with nothing visible other than normal looking carpet."

And if it's possible for a school, why not eventually in the home?

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American Agriculturist, February, 1972



Almost everyone loves a fireplace, and it is one of the most-wanted extras when a family builds a new home or remodels their present one. While it's true that a wood-burning fireplace has a warmth and charm that can't be completely duplicated, don't give up the idea altogether if it is impossible for you to have one. Check the many gas and electric units that look like the real thing and can be at least as "heart warming" as a crackling fire . . . and they're a lot cleaner!

To make it even easier for you to have a fireplace, factory-made wood mantels are now available at building supply centers. You can get an authentic copy of an antique fireplace or an unadorned one to match your modern decor.



♦♦♦

New from Corning Glass: Pyrex Stack Mates, 14-ounce all-purpose stacking dishes that will go from freezer or refrigerator to the oven for heating up leftovers. Ideal for storage and attractive enough for serving foods. Available now at 99 cents for a set of two.



♦♦♦

It takes only a screwdriver and a wrench for a serviceman to quickly

Spring

(Continued from page 43)

combined with forsythia and greens makes an elegant arrangement. Pussy willows add even more interest, and you could probably get two arrangements for your dollar.

Make a Moss Garden

Another idea is a woody moss garden to decorate a small spot or for a centerpiece on your table. Use bark for the container. Gather bits of green moss and early wild flowers taken up by the roots and set them into the bark container. Some of the spotted leaf plants, such as dog-tooth violet, add a touch of variety. A pitcher plant could be the focal interest. In some states, certain scarce plants are protected by law, so be sure you know what you may pick, even in your own woodlot. It is possible you may be permitted to transplant some kinds but not pick them.

American Agriculturist, February, 1972

reverse hinges and handles on this refrigerator-freezer from Frigidaire to left or right-hand opening.



♦♦♦

Did you know that the vegetable crisper in your refrigerator performs better if it is at least two-thirds full? According to U.S.D.A. specialists, vegetables will keep better if they are put in plastic bags before being placed in the crisper.

♦♦♦

Drawers in which small items of different sizes are kept will stay more orderly if suitable cardboard boxes are fastened to the bottom with thumbtacks.



♦♦♦

If any of your hard-cooked eggs get mixed up with the uncooked ones, you can tell which is which by spinning them. It will be difficult to spin a raw egg, but a cooked one will spin readily.

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Take weight off this winter. Stop in at your farm store and try on a pair of Tingleys. The price is light, too.

TINGLEY



For the Farm & Rural Home Bookshelf

We have arranged with the publishers to supply directly to our readers, postpaid, any of the following books at the prices listed. Please allow two weeks for delivery.

Title	Author	Delivered Price
OLD-TIME AGRICULTURE IN THE ADS: Korolevitz		\$2.00
AGRICULTURAL ENGINEERING—A DICTIONARY AND HANDBOOK: Farrall & Albrecht		11.25
ANIMAL SANITATION AND DISEASE CONTROL: R. R. Dykstra		11.00
ANIMAL SCIENCE: M. E. Ensminger (1969 edition)		19.75
APPROVED PRACTICES IN BEAUTIFYING THE HOME GROUNDS: N. K. Hoover		6.25
APPROVED PRACTICES IN BEEF CATTLE PRODUCTION: E. M. Juergenson		7.00
APPROVED PRACTICES IN CROP PRODUCTION: Brickbauer & Mortenson		7.50
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GARDEN TALK

by Doc and Katy Abraham

Grow More Vegetables

Last year a strange thing happened! Grocery stores ran out of glass jars, as home freezing and canning broke records; greenhouse operators sold out their supply of tomato and vegetable plants. In a survey we made among 25 seed companies and nurseries, every one of them reported sales in seeds and vegetables had increased from 3.2 million to 4.4 million. Americans put in more than 50,000,000 vegetable gardens.

What brought about this change? Anybody who keeps a budget knows — tight money and high food costs. For the time a gardener spends tending his crops, he makes a tidy \$4.00 an hour, to say nothing about improving his health mentally and physically.

Get The Young To Garden

Every AA reader should do all he can to encourage young people to put in gardens. Pressures on our youth are greater today than ever before. They have too much time on their hands, and we should encourage them to take up the slack with some phase of horticulture, such as vegetable growing, landscaping or fruit gardening. Gardening can be used for keeping children busy, so they won't be tempted to use drugs. Drug addiction is worse than the bubonic plague.

Use Vegetables in Borders

No room for growing vegetables, you say? Then try combining them with annuals in the flower border. Vegetable plants can serve a dual purpose, providing food as well as making an attractive display. Our only suggestion is to plant vegetables and flowers of the same height together and select vegetables which give an interesting appearance even after the fruits are harvested. Your seed catalog can help you on this.

If you're a city gardener, try "sky farming." That means growing plants in containers on a roof. An 80 square foot plot of soil can produce substantial crops. Make containers out of wood or cinder blocks. A container or box 10 to 12 inches deep will support such crops as lettuce, radishes, tomatoes, carrots, beets, kale, kohlrabi, spinach and bush beans.

Project For Service Clubs

A good project for service clubs is to sponsor a vegetable gardening or fruit growing contest among young people. Last year Katy and I sponsored a giant pumpkin and sunflower contest among the young, and you never saw such enthusiasm! We've said it many times before — "If you can encourage the kids to get their hands in the soil while they're young, they're less likely to get their hands on a gun later."

Water In the Garden

At various times last year, water was in short supply, discouraging some gardeners. Some AA readers tell us there has been a shortage for the past several summers. Let's look and see where our water comes from.

All the fresh water in the world adds up to only about 1/30th of the water there is in the salty ocean. And one-third of that fresh water is locked up in snow and ice. Much of the rest is too far underground or too loaded with minerals to be useable. So all the fresh water needed by plant and animal life on earth must come from the remainder.

Every year about 30 to 36 inches of water rise as vapor into the sky, and this falls back to earth as snow, rain, etc., and runs to the sea. It then evaporates again into the sky, a cycle that keeps repeating itself.

Nature sometimes distributes water very unevenly. An AA reader in Ithaca, New York, might get plenty, but a neighbor a few miles away might get none, or only a very little. The average person who reads this column uses from 100 to 150 gallons of water a day, and a family of four uses from 400 to 500 gallons, without allowing any for use on plants.

Read Seed Catalogs

Nursery and seed catalogs are a storehouse of useful information. Here are a few tips for getting the most from your catalog —

Don't go overboard on brand-new items. Some may not be as good as your old favorites. But don't hesitate to experiment and try new ones.

Look for varieties marked "disease resistant," especially with vegetables. Disease-resistant does not mean the plants won't get any disease. It simply means they will resist certain diseases. For example, Delicious Melon is fusarium-wilt resistant, but it can get a dozen other diseases. Resistant types should be grown because there's no other way to fight the disease.

Save yourself a few cents by ordering seeds in larger amounts. For example, if the catalog prices hybrid watermelon seeds at the rate of 10 for 40 cents or 50 for \$1.50, get the larger amount and make a 25 percent saving, or a cent a seed. This may sound like small peanuts, but it all adds up when you make out a big seed order. Remember — good seed is a bargain, regardless of its price in a catalog.

THE BIRD TREE

BY Inez George Gridley

Nuthatch and titmouse and purple finch,
Cardinal, bluejay and chickadee
Come to the tree. On bole and branch,
Suet and seeds and crumbs are free.

Bird tree, bloom in the cruelest weather,
While sun retreats and wind claws
deep.

Red and blue and soft gray feather
Blossom here while tulips sleep.



Holland is especially beautiful in the spring. We'll spend five days enjoying her gardens and flower fields.

Take a Journey into SPRING

This year AMERICAN AGRICULTURIST and Travel Service Bureau offer you two brand new, wonderful spring vacations to some of the most beautiful gardens in the United States and Europe. The first is our Springtime in Virginia Tour, scheduled for "Historic Garden Week in Virginia," April 22-30; the second is our Gardens of Europe Tour, and the dates are April 27 to May 13. Here are brief descriptions of these two trips.

For our holiday in Virginia, we travel from New York City to Washington on the Amtrak Metroliner. What a train! While in the Washington area, we will visit the Capitol, Bureau of Printing and Engraving, Arlington Cemetery, historic Alexandria and Mt. Vernon.

Two days in Colonial Williamsburg come next, with a side trip to Jamestown, site of the first permanent English colony in the United States. It's delightful to explore restored Williamsburg and browse in the shops, also we won't want to miss the beautiful gardens at the Governor's Palace.

In Richmond, we'll see the Capitol, St. John's Church where Patrick Henry made his "Give me liberty or give me death" speech, and the lovely gardens surrounding Agecroft Hall, Monticello and Ashlawn, homes of Thomas Jefferson and James Monroe, are next on the itinerary; Ashlawn is noted for its magnificent boxwood garden.

We'll stop at Natural Bridge, one of the world's 7 natural wonders, on our way to the famous health resort of Hot Springs and the Homestead. It's hard to imagine a lovelier setting than this scenic valley surrounded by tree-clad mountains. We'll swim, bathe, stroll about the grounds, and thoroughly enjoy the

wonderful accommodations and delectable meals.

At Staunton, we visit Woodrow Wilson's birthplace with its lovely Victorian garden and then continue to the beautiful Caverns of Luray, an underground wonderland. We will also hear the carillon recital given at the Luray Singing Tower. The carillon contains 47 bells, ranging in size from 12½ to 7,640 pounds!

Our vacation ends with a drive along the crest of the Blue Ridge Mountains on the scenic Skyline Drive, as we travel back to Washington to again board the Metroliner.

Europe in the Spring

Tulip time in Holland! Our Gardens of Europe Tour starts with four nights at Hotel Witteburg in The Hague, where we're surrounded on all sides by Holland's flower industry. The Hague is the royal residence and diplomatic center of the Netherlands, also permanent seat of the International Court of Justice.

While in The Hague, we will see the famous Haarlem to Sassenheim Floral Parade and visit Keukenhof which offers a magnificent example of the Dutch love of blended flower colors and restful wooded landscape. We'll take a sightseeing tour to Rotterdam and lunch at the famous Euromast, an observation tower, 329 feet high. There'll also be an opportunity to visit Madurodam, the miniature town with canals, old and modern buildings, made to scale of 1/25th and presenting the development of Holland from the year 1000 to the present.

On another day we'll travel to Amsterdam to enjoy her art galleries and museums. We'll visit Aalsmeer where flower auctions are held every

(Continued on page 46)

Gordon Conklin, Editor
Box 370-T
Ithaca, New York 14850

Please send me without obligation on my part, the following tour itineraries:

Spring in Virginia _____ Mexico Fiesta Tour _____
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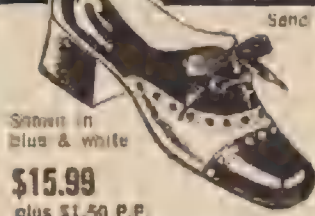
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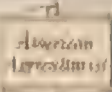
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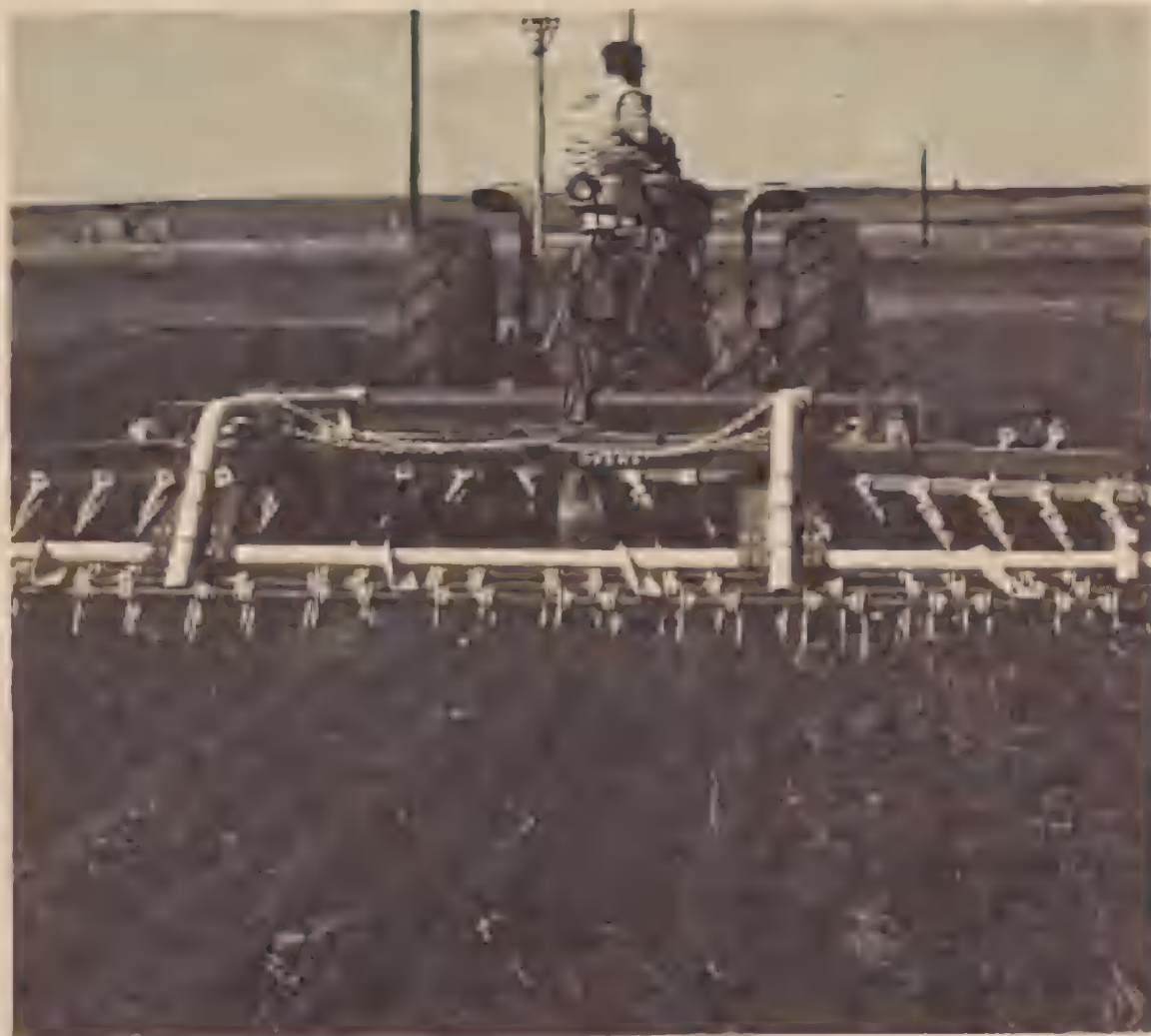
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Stub LaShomb (right) greets Bud and Jewell Faust. Erma Slate comes around the bend.

Snowmobiles provide an ESCAPE FROM THE GRINDSTONE

TWO miles across the wind-whipped St. Lawrence River from Clayton, New York, lies Grindstone Island. In the winter, the ten farm families living on the three-by-seven-mile island have turned to snowmobiles the way most of America turned to the automobile earlier in the century.

Only one wheeled vehicle . . . the school bus . . . travels the island's winding roads. All other winter traffic is by foot or snowmobile.

Snowmobiles are recreational vehicles to most people. To the islanders, they are a lifeline to the mainland . . . carrying food, medicine, mail and supplies across the St. Lawrence River ice.

The river usually freezes enough to permit safe travel around Christmas. From then until the first ice-breaker comes through in early April, everything moves by snowmobile.

"River ice can be eroded by current from below and might not be as thick today as it was yesterday," says Clarence "Stub" LaShomb. "Snowmobiles give you a real safety advantage because you can see where ice has a different color, or maybe the snow on top looks a little mushy where a strong wind has

forced water up through a crack. When in doubt, check it."

Stub makes the crossing at least once a day. "On bad days in the past, we used to sit there trying to think up excuses not to take that walk," he says, "but now we don't think about it. If we need something, we just hop on the machine and go."

Social life on the island revolves around snowmobiles, too. Harry and Erma Slate keep a pot of coffee on the stove, and neighbors drop in frequently.

Like the other farmers on the island, Harry Slate switched from dairying to raising beef cattle when Grindstone's cheese factory closed a few years ago. He bought his two Ski-Whiz snowmobiles from his Massey-Ferguson farm equipment dealer, Glenn Johndrow. Johndrow, a mainlander, has been given honorary islander status by the Grindstone residents.

"Snowmobiles let people get out more," says Erma Slate. "We look forward to winter now because you just know you're going to be able to get out and go wherever and whenever you want." — Charles Russell.

Take a Journey

(Continued from page 45)

morning and lunch at the Five Flies Restaurant. Leaving The Hague, we stop at a famous Delft Blue Pottery factory and the Monastery and Town Hall at Middelburg.

Crossing by ferry into Belgium, we take a sightseeing tour of Ghent and continue to Brussels where we stay two nights and see the city's attractions, including Leopold and Cinquantenaire Parks, the Gothic Town Hall and the Flower Market.

Next, we spend five days in France. We will see all the famous sights of Paris and the surrounding area — Montmartre, the Luxembourg Gardens, the Tuilleries, Palace of Versailles — and take a two-day tour of the Loire Valley and Chateaux Country. There is no other region equal to the Valley of the Loire for castles. Most of them date back to the 15th and 16th Centuries and are in a remarkable state of preservation.

London is the last highlight of our Gardens of Europe Tour. In addition to seeing her well known and historic places, we will visit

Windsor Great Park, the Saville Gardens, Kew Gardens, and the British Agricultural Society Gardens at Wisley. There will also be time to shop in some of Europe's most famous stores. Truly, this is a trip you'll always remember!

Mexico and Hawaii

We believe our Holiday in Colonial Mexico (March 6 to 20) is the best Mexican tour we've ever offered our readers. A few highlights are Mexico City, Teotihuacan, Queretaro, Guadalajara, Patzcuaro, Janitzio, Morelia, Ixtapan and Cuernavaca. We have purposely tried to stay away from the resort areas in order to show you the true old Mexico with its Spanish and Indian backgrounds — a land of smiling, friendly people.

On our Hawaiian Holiday (March 11 to 23), you'll see the most beautiful and exotic sights on Hawaii. Maui, Kauai and Oahu. Tropical flowers, hula dancers and flower leis, haunting music, and the blue Pacific's broad, sunny beaches will all help weave a spell so you'll hate to leave the "Paradise of the Pacific."

Write for the free illustrated folders.

American Agriculturist, February, 1972

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RAISE RABBITS SUCCESSFULLY by knowing facts. 48 page illustrated book describing 25 breeds, housing, breeding, feeding, markets, marketing, etc. 35 cents. American Rabbit Association, 28 ARBA Building, Pittsburgh, Penn. 15217.

\$500-\$1000 MONTH. Plan raising rabbits for us. Free details. White's Rabbitry, Mt. Vernon, Ohio 43050.

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WANT TO GET in the beef cattle field and make profit? If you do, remember Shorthorns - Polled Shorthorns go to market 30 to 40 days sooner than other breeds. Calves weigh 60-80 lbs. more at weaning. Get the facts. Free. Write Department RB, American Shorthorn Association, 8288 Haskell St., Omaha, Nebraska 68124.

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REGISTERED HAMPSHIRE Certified meat tested Boars and Gilts, National championship bloodlines. Brooks End and Pat Kay Farms. Reno H. Thomas, Beavertown, Pa. Phone 717-658-6714.

THE NEW YORK STATE Yorkshire Club will hold their 21st Annual Spring Show & Sale on March 18, 1972 at Empire Livestock Market, Rt. 51 Caledonia, New York. Show 11:00 AM - Sale 1:00 PM. Bred gilts, open sows and boars will sell. Two consignors from Pennsylvania with new bloodlines. For catalog write: John Stinson, 4850 Varysburg Road, Warsaw, New York 14569.

26TH ANNUAL YORKSHIRE SALE - Friday, March 3rd, 1 PM. Selling 200 head Production Tested Bred and Open Gilts plus Boars. New blood from Scotland. A very top Indexing Canadian Boar: 0.59" backfat; 143 days to 200#; Index of 140. Sire and dam head in Monro and Gamme herds. Bred gilts will carry his service. Our 1971 carcass winners are superb! Eastern National, Md. 1st place pair (light wt.) 29.9" length 3.25 loin eye; 0.95" backfat; 43.15% ham - loin. Syracuse, N.Y., we took seven of the eight blue ribbons of the open Barrow Show. North Carolina State Fair, we had the Top Cutting Barrow 31.8" length; 6.03 loin eye. 0.97" backfat; 182.3 ham loin index. Pennsylvania Exposition, Champion Yorkshire carcass 31.3" length; 5.5 sq. in. loin eye. 1.1" backfat; 31.6% ham loin. We also had Reserve Champion carcass. Our breeding herd with all its champion winners ended the year winning the Premier Breeder award at the Pennsylvania Exposition. Sale catalogues available. Sale is held in our own sale barn on the farm. Brooks End and Pat Kay Farms. Reno H. Thomas, Sale Mgr., Beavertown, Pa. 17813. Phone 717/658-5821.

REGISTERED HAMPSHIRE serving age heaves for sale, placed fifth and sixth at New York State Fair, Abe's Acres. William J. Abrams, Walworth, New York. 14568. Phone 515/497-6313.

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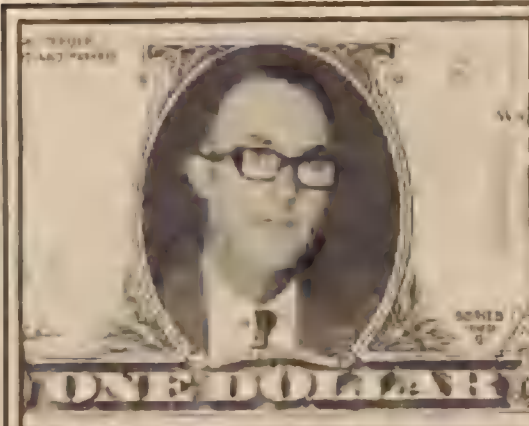
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Nasal Vaccine—A new cattle vaccine which can be administered through the nose is said to prevent bovine respiratory disease (shipping fever) without causing abortions in pregnant cattle... long a problem connected with modified live virus vaccines.

Developed by Jensen-Salsbery Laboratories in Kansas City and trade-named Nasalgen IP, the vaccine has already been distributed to veterinarians. Disease resistance becomes effective 40 to 72 hours after vaccination.

Morgan Farm—Horses and young people go together. So it's no surprise that a number of Vermont 4-H clubs are giving some of their meager funds to save the Morgan Horse Farm in Weybridge.

A recent one is the Hill 'N Dale

Club of Essex Junction, which gave \$150 to Dr. Donald J. Balch, director of the Morgan Horse Program at the University of Vermont.

"We've received much larger checks from adults, and they're desperately needed, but none has meant more than the gifts from the young people," Balch comments. "In a sense, we're trying to save the farm for the next generation and this shows they recognize that fact."

The farm has been operated by the University of Vermont since the early 1950's. Because of the current budget crisis, state and university officials plan to cut off funds June 30.

Balch and others hope to make the farm self-sustaining through a variety of programs, but they need \$50,000 above projected income for the year ahead. They also hope for pledges for two or three years until the new system establishes itself.

Persons who wish to save the Morgan Horse Farm can send their checks to the Office of University Development, University of Vermont, Burlington, Vermont 05401. Include a note specifying the purpose of the gift. It's tax deductible.

Horse Count—Nearly 35,000 horses are currently stabled in New Jersey... just about twice as many as there were ten years ago. The horse industry, with its racing and pleasure horse branches, represents an annual quarter-billion-dollar asset to the Garden State.

These figures are documented in what is believed to be one of the first in-depth studies of equine trends carried out in any of the 50 states in recent years. It involved a county-by-county survey to locate every horse, almost down to the last nose... or maybe it's the last whinny!

The number of horses is divided almost equally between business owners and those who maintain their animals for personal use; personal owners outnumber their business counterparts by nearly four to one.

The number of horses is expected to keep right on growing in New Jersey, the most urbanized state in the Union!

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TAKE-HOME APPLE PACKS

by Charles Stratton

AT Allenholm Farm's roadside stand in South Hero, Vermont, Ray D. Allen likes to sell apples in two sizes of knock-down cartons, and when customers buy the apples, they take the carton home, too.

Over the years, the Allens... Ray D.'s son Ray and daughter-in-law Judy actually own and operate the 120-acre fourth-generation farm... have given all types of apple display packs a fair trial, but claim the ones they use now are best. They don't require much storage room, nor much time to assemble, and time saved is an important item to consider when there are thousands of boxes to assemble.

In the salesroom, the smaller apple packs are placed on furring strips so all packs are level to form a "sea of apples." Allenholm Farm's salesroom differs from most in that customers get to keep the fruit containers... even the wooden boxes. Although buyers get a price break on utility-grade apples sold in wooden boxes, the low price includes the box (the Allens pick into bulk 16-bushel bins).

Customers who buy small boxes of pears, crabapples, etc., or small Vermont souvenirs, receive their purchases in bright yellow plastic bags covered with "countrified" sales re-

mindings printed in black.

Although he sold the farm to his son, 81-year-old Ray D. Allen still works seven days a week... 11 hours a day on weekdays, a little less on Sundays... running errands with his small Scout station wagon and helping in the stand and orchard.

He likes to tell about the bright red pear trees he bought years ago. He bought them for Maxreds, but they looked more like Bartletts, so he called them Red Bartletts. Now the farm is noted, among other things, for its Red Bartlett pears.



Allenholm customers get their purchases of small amounts in bright yellow plastic bags like the one held by Judy Allen.

ALLENHOLM CIDER

Customers get samples of freshly-pressed cider right from the barrel at Allenholm Farm's roadside stand.

A small press turns out up to 100 gallons an hour of fresh cider. The cider room is attached to one side of the roadside stand and customers can watch the cider-making process through a plate glass window.

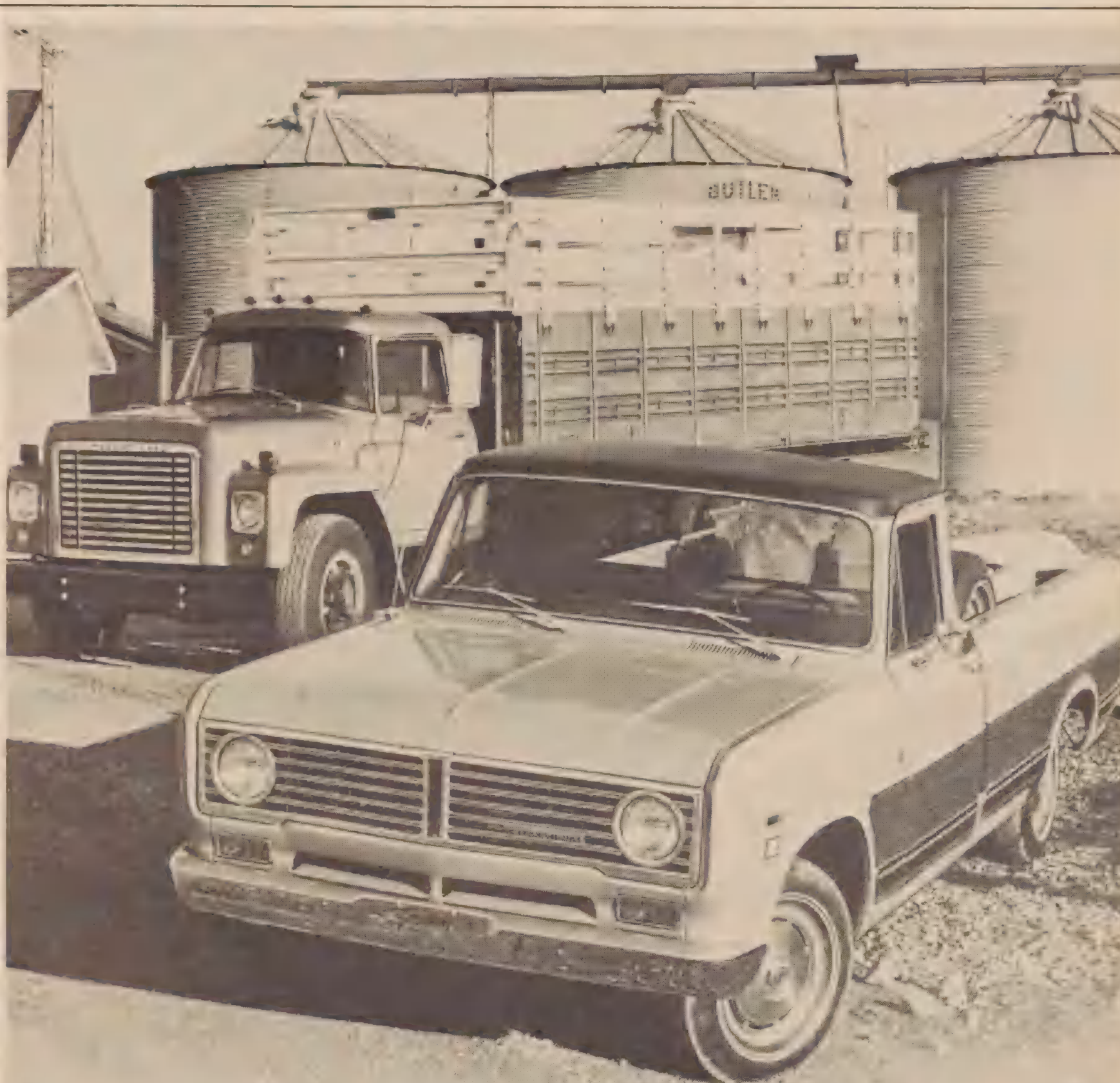
The freshly-pressed cider is pumped from the press through clear plastic tubing into a 500-gallon bulk milk tank for cooling and settling, then into a 250-gallon tank for holding and bottling in plastic jugs. From this tank, a plastic tube carries the properly-cooled cider to the spigot of the customer cider barrel... actually a half-barrel attached to the salesroom wall.

Customers can either get a free sample or pay ten cents for all the cider they can drink. Gallons are sold at the checkout counter.

Salesroom attendant Happylona Maxham, who wears a tag reading "Hi, I'm Happy," claims that most people buy a gallon before turning the spigot for a free sample!—C.L.S.



Happylona Maxham, who takes care of Allenholm Farm's cider sales, draws a sample from the cider barrel.



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THE PEOPLE SPEAK

Across the years, it is doubtful if any single force has had greater impact on American agriculture and its record of increased productivity than the agricultural colleges and their Extension staffs. Directly or indirectly, as discoverers of new truths and dispensers of knowledge, this team has speeded up the revolution which has characterized our industry. The debt we owe them is almost incalculable.

It is no contradiction to say, however, nor does it in any way change the above statement when we observe that all institutions must from time to time stand for inspection. Those who are ultimately footing the bills have a right to be heard. More than this, under our system of government they will be heard. The danger is real when their clear messages are ignored, and in retaliation great harm may be done.

Specifically, it was a shock to hear that a county in Wisconsin had decided to do without the Extension Service. Without going into the details, this appears to be a great over-reaction.

Here in New York, I sense a very real resentment and frustration on the part of my friends and colleagues across the State at the continued proliferation of the Extension programs into various new fields in spite of the continued clear messages that this is not the intent or desire of the taxpayers.

Let me be more specific. For years, a larger and larger share of the budget of the county Extension units has gone for non-farm, non-rural, non-productive programs. I doubt that any percentage of rural people are unaware that both rural and urban people have benefited from the factual educational input into agriculture and the community. Taxation of the general population has, therefore, been justifiable.

It may be equally justifiable to tax all sectors of the economy for recreational inputs. The same goes for widespread participation in regional planning. Ditto for various socio-economic activities. The justification may be made as to the fairness, but when the people clearly say they don't need or want more... that they are already paying for more than they prefer... then it is time to start listening.

For several years, I've heard farmers seriously discuss how to stop this ever-expanding service; how to be heard short of insisting they don't want any of it. To take this latter extreme seems unlikely and ill-advised, yet several responsible leaders have been heard to mull the possibilities.

A close-to-home experience may serve to illustrate how many people feel and suggests why it seems worthwhile to publicly state the case of the people.

In our county, the supervisors were considering the budget. Our local Farm Bureau Kitchen Conference discussed some of the budget items and proposals, and unanimously resolved to send a letter to the supervisors asking for a sharp cut in the Extension budget. Economies in other categories were also suggested,



Gayway Farm Notes

by HAROLD HAWLEY

It was more than significant that not a single voice at this local Farm Bureau meeting was raised to support the proposed Extension budget. Included among those present were several who had at various times served on the County Extension Executive Committee... and all are users of the service in various ways... but all said enough was enough.

We already have a county planning staff (more than many feel necessary), and yet the Extension Service planned to expand its efforts to supplement or duplicate the work already being done. All this without any call for such service from the people. Additional reaction has to do with the feeling that the agricultural interests of the county should be represented by their elected spokesmen, not by salaried government employees who at this stage are uncertain for whom they speak.

SIGNS OF THE TIMES

The barbers in our town are still barbers. In larger communities, I note that the sign which used to say John Doe-Barber now says John Doe-Barber and Hair Stylist!

CAN'T WIN 'EM ALL

After harvesting a crop of corn with a combine we are most enthusiastic about that as being a real nice way to do the job. It was faster than a picker, wasted less grain, reduced the amount of hauling, and it certainly was more pleasant to ride in a comfortable dust-free cab than on a tractor in the cold and dust.

There is one aspect of the whole operation which is not quite so good as was the picker arrangement. The stripper plates on the combine do a pretty rough job on the corn stalks and the combine wheels run over part of the stalks on two of the three rows. As a consequence, the amount of heifer feed available is much less behind a combine than behind a picker.

We have enough stalks to run our heifers through all winter, but it will mean fencing more fields and where the snow is at all deep, the feed will be less available than in former years.

THE LAST ROUND-UP

For years we have kept a couple of saddle horses for pleasure and for handling heifers. Our needs are fairly simple—a good reining animal who is tractable enough to work around cattle. Unlike a rodeo cowboy who wants all the horse he can get when

he goes out to rope his calf, we want something that can move out when necessary, but most of the time a quiet, responsive horse is the main requirement. We've never felt there was any excuse for getting the heifers all worked up and running when we move or separate them.

It's amazing to see how soon a heifer gives up trying when a good horse outmaneuvers her a time or two. We usually bring two or three springing heifers home at a time. Two men on horses can sort them out and drive them home with a minimum of effort if the horses know their business. Without horses it would be a hot, breathtaking job for several men or boys to sort out the ones to go home and then to drive them away from the herd.

For several years we have had two horses which suited our needs pretty well. They are both well up in years and lately it is apparent that we will have to make some changes. It is kind of sad to see an old horse who knows his job but just can't "make the moves" as fast as necessary any more.

Of course, for some time we've sort of made excuses for them but there really is no doubt that the "old gray mare ain't what she used to be."

FACE MASK

There is sometimes a certain amount of mold and dust connected with opening up a silo. Over the years, this seems to have become more and more irritating to us. For some people, it even gets to be a real serious matter as the lungs become more and more sensitive to the mold organisms.

A good mask and filter is a pain to wear but saves so much risk and discomfort that we wonder why it took us so long to get properly protected. I'm not selling the things, but I hope you will buy some and eliminate that hazard. I'm glad we did.

A NEW APPROACH

With some variation, our approach to feeding a corn crop has been to plow down a good healthy application of dry blend ingredients. We naturally vary this according to the field, with less nitrogen going on those fields that are being plowed out of sod and/or have been heavily manured. We like to put on 200 to 225 pounds per acre of 12-24-12 with the planter to get the crop up and growing.

For some time, we have been paying a little more for nitrogen in the dry form than it would cost if we used anhydrous ammonia. This seemed like good business when we

considered the extra cost of going over the ground again to put the anhydrous on as a side-dress.

Beyond this... and probably more important in our minds... was the conviction that at least in dry years we got better results from plow food plowed down than from that near the surface. We like the notion of having the rootlets feed down a ways so that they will also get moisture in a dry spell.

Various researchers seem to give the nod to a plowdown of phosphorus and potash and a side dressing of nitrogen when the corn is up a few inches.

Even allowing for the cost of an extra trip over the land to get the P and K on for plowdown, and the N knifed in for a side-dress application, we can keep the cost comparable. So this year, we put on some P and K in December for plowdown next spring. We like the idea of getting part of this job done in the fall to relieve the rush a little in the spring. Naturally, we never dared do this when we were talking about putting on the N along with the other ingredients.

We are the first to admit that one year tells nothing and that only by precise weighing can one really tell when one system leads to better yields than another, but we will watch with real interest those fields which have side by side differences in timing and methods of application.

WHO WILL DO IT?

Last winter's heavy snow load caused some new barns and poultry houses to collapse. A couple of manure pits we know about have failed. Some equipment within dairy barns and poultry houses has proven far from adequate in spite of its high cost.

The most obvious need is for some research to be done. Adequate structural strength for industrial buildings is an integral part of the input. Too many contractors who put up farm structures apparently do not have all the information they need. Who should be supplying this?

The deterioration of concrete in manure pits is a serious problem. Some answers are badly needed and lacking. Who is going to supply them?

As to the equipment within the buildings, the case seems even more hopeless. Feeding equipment and conveyors with a life of less than a year can hardly be called adequate. The dealer who sells same is not the man to talk to. He doesn't make or design them, and most companies with whom we've talked seem to be most unresponsive to the obvious need for change and improvement.

Almost as discouraging is the need to buy a whole this or that when all that is needed is some part thereof. We've battled all the way to the top with several suppliers... with almost no results. Some of our co-ops large enough to insist they should be able to buy only the part needed rather than a whole unit are equally unresponsive.

Who will make a breakthrough possible? The needless expense to farmers justifies some changes. Who can or will bring this about?

American Agriculturist, February, 1971



SERVICE BUREAU CLAIMS
RECENTLY SETTLED

NEW YORK	
Mrs. Romain F. Wood, Central Square (refund on order)	\$29.79
Mr. Gus F. Polli, Grand Gorge (refund on order)	39.95
Miss Ruth V. Frey, Staten Island (refund on order)	3.95
PENNSYLVANIA	
Miss June Fry, Muncy (refund on order)	3.65
Mr. Roy B. Smith, Homer City (refund on vest)	27.50
Mrs. Irvin Heitzenrater, Punxsutawney (refund on order)	9.25
NEW JERSEY	
Mr. Roy Sutton, Branchville (refund on order)	28.50
MAINE	
Mrs. Harlan Trundy, Hebron (refund on grates)	17.64
VERMONT	
Mr. Ehrick Wood, So. Pomfret (refund on trainer)	239.95
Mr. Christopher Bryant, Manchester Center (settlement on freezer)	38.87
MASSACHUSETTS	
Mr. Alanson H. Sturgis, Lincoln (refund on rainhat)	6.95
CONNECTICUT	
Mr. George Prue, Storrs (refund on clock)	2.50

LONG WAIT

"On August 10th, I ordered vitamins and a super deluxe juicer. I received the vitamins, but have never received the juicer.

"I have written three times and called the place of business twice. After being advised twice by mail that they make prompt shipment, I was finally advised on September 21st that the juicer was out of stock and would be shipped promptly.

"The juicer cost \$79.95 and I have asked them to return the money if they cannot send it. Would appreciate it if you could help."

We wrote the company on November 4th and 24th, and on December 9th our subscriber received the juicer . . . four months after ordering it!

SATISFIED

"Less than two years ago, the metal roof on my house needed painting. I tried to do it myself but it was difficult, so I called an out-of-state company that was advertising in the local papers a special paint so good that they would guarantee it for fifteen years. The total cost was \$331.00.

"In less than two years, some of it has peeled off and we have leaks. I have called their local office and asked to see a representative, but I have seen no one. Would you contact them for me? I am sure they would make an adjustment, if they would check on it."

It took three letters over a period of four months, but we finally had an answer from the company, advising us that the customer had been serviced to his satisfaction.

LOST ADDRESS

"I sent a \$4.98 check for a telescope for my son on January 22, American Agriculturist, February, 1972

1971. We heard nothing from the company until September of 1971. At that time, we received the cancelled check and figured the telescope would follow. So far . . . nothing.

"I have lost the address of the company, so have been unable to write them. Can you help?"

We found the company's address, and our letter to them on December 6th brought an immediate answer. They had mailed the telescope but apparently it had been lost, so they mailed a replacement. Ordinarily, we do not attempt to handle a complaint that is over six months old. However, in this case, our subscriber had been unable to contact the company herself, so we made an exception.

CAN YOU HELP?

If you know the song, "Going Down the Valley One by One," will you send the words to Mrs. Herschel M. Garrison, Box 274, Cedarville Rd., Millville, N.J. 08332.

Mrs. Leon A. Davis, Old York Road, R. D. 2, Burlington, New Jersey, would like the playing cards called "Make a Million."

Mrs. Robert R. Willever, 130 Fourth Street, Belvidere, New Jersey, is looking for the words to a poem that begins "Godfrey Gordon Gustava Score, was a boy who would never shut the door," and another one that ends, "They forget that I can spell a bit myself," which is a Christmas poem.

Mrs. R. G. Emison, 60 Roe Avenue, East Patchogue, New York, would like to buy earlier stories by Dorothy Stevenson and Angela Thirkell.

Mrs. Cyril Light, RD 2, Box 360, Dover, Pennsylvania, would very much like a copy of "Around The Golden Deep," by A. P. Reader.

Mrs. J. Arthur Du Puy, RD 2, Hamilton, New York, is looking for a copy of the book, "Profitable Country Living for Retired People," by Haydn Pearson.

Mr. Roland Earle, 130 Union Street, Montgomery, New York, would like the title of a poem, and a copy of it if possible: "I remember, I remember, When I was but a lad, Down on the old Plantation, What jolly days we had," are the first few lines.

Mrs. Estella LeClair, Lone Maple Rabbitry, Nottingham, New Hampshire, is in search of a phonograph record about the Morro Castle disaster in 1934.



"While helping unload a truck full of cows at Millers Auction barn I got trampled and gored which sent me to the hospital fifteen days and laid me up at home for weeks. Mr. Pine has sold me over the years as North American has progressed in coverages. Now I can truthfully say it is the best for everyone to carry."

Ralph O. Moore

Mr. Moore of Johnstown, N.Y. received payment checks from local agent Frank Pine of Fonda, N.Y. A combination of North American policies provided these benefits:

Medical Expense Reimbursement	\$878.05
In Hospital Income 15 days	889.29
At Home Income 3 wks 2 days	778.57
Total	\$2545.91

OTHER CLAIMS PAID

Robert G. Fanton, Wellsville, N.Y.	\$1314.36	Michael Kuncik, Richfield Spa, N.Y.	\$ 887.25
Fell from tractor—inj. elbow		Snowmobile accident—broke ribs	
Richard Campbell, Little Valley, N.Y.	847.96	Ruth D. Holmes, Worcester, N.Y.	1241.50
Horse reared—broke collarbone		Slipped on stone—broke leg	
Leo Geise, Little Valley, N.Y.	1325.75	Paul Tracy, Madrid, N.Y.	342.04
Automobile accident—broke ribs		Thrown from horse—broke arm	
Agnes A. Hawelka, Cato, N.Y.	325.00	Horace G. Brewer, Canton, N.Y.	1215.71
Slipped on ice—injured neck		Hit raft—broke eye	
James S. Nalbano, Sr., Jamestown, N.Y.	612.52	William Hensel, Sharon Springs, N.Y.	235.31
Fell off wagon—broke knee		Elevator slipped—broke heel	
Albert Eckman, Jr., Frewsburg, N.Y.	1117.14	Ray Garrett, Sr., Waterloo, N.Y.	313.56
Fire exploded—burned leg		Caught in PTO—broke arm	
Vincent Weidman, Oxford, N.Y.	405.00	Daryl Dennis, Jasper, N.Y.	739.00
Tractor tipped over—cut arm		Thrown from snowmobile—broke ankle	
George A. Duprey, Plattsburgh, N.Y.	487.88	George Talbot, Cameron, N.Y.	1308.56
Slipped & fell on ice—injured shoulder		Caught in saw—inj. hand	
Charles R. Stafford, Cortland, N.Y.	1771.45	Henry Whitney, Campbell, N.Y.	1219.28
Tractor tipped over—broke ribs, cut scalp		Hit by barrel—inj. knee	
Alton Clark, Unadilla, N.Y.	419.90	Joseph Troyan, Sr., Aqueboque, N.Y.	676.10
Struck by fork—head injuries		Tractor hit hole—inj. shoulder	
Dorothy M. Finkle, Delhi, N.Y.	544.72	William Conway, Southold, N.Y.	1040.26
Wagon tipped over—inj. arm, shoulder		Beater fell—injured feet	
Norman George, South Wales, N.Y.	1513.35	Leroy Brown, Owego, N.Y.	945.31
Kicked by cow—inj. back		Fell from ladder—injured back	
Lawrence Rousell, Sr., Constable, N.Y.	272.40	Marguerite R. Bower, Pine City, N.Y.	432.94
Slipped, fell on ice—inj. knee		Thrown from snowmobile—inj. leg	
Carl Church, Elba, N.Y.	679.77	Abram J. Steurys, Palmyra, N.Y.	790.66
Bit by dog—face injuries		Mold fell—broke foot	
Kenneth Smith, Jordanville, N.Y.	742.69	Stanley J. Hance, Marion, N.Y.	507.31
Slipped into conveyor—injured foot		Hit by ladder—inj. knee	
Stanley G. Hopkins, Mohawk, N.Y.	247.49	Leo Keem, Arcade, N.Y.	1274.60
Slipped on ice—injured shoulder		Knocked down by cow—inj. back	
Irene M. Micek, Watertown, N.Y.	235.71	Lulu F. Jones, Tioga, Pa.	753.75
Fell on wet floor—inj. pelvis		Fell on doorstep—broke arm	
Thomas Gracey, Watertown, N.Y.	992.42	Paul Will, Jr., Waterford, Pa.	466.40
Snowmobile accident—inj. neck		Kicked by cow—broke hand	
Harrison Martin, Glenfield, N.Y.	326.22	James W. Smith, Belvidere, N.J.	449.63
Chain saw slipped—cut knee		Caught in PTO—cut leg	
Kevin J. Brown, DeRuyter, N.Y.	258.79	Bernhard, Himmel, Jamesburg, N.J.	506.00
Automobile acc.—head injuries		Fell from ladder—broke ankle	
George A. Hauslauer, Scottsville, N.Y.	320.00	Jack B. Beaman, Northfield, Mass.	306.96
Fell on ice—broke ankle		Power saw flipped—cut tendons	
Jacob F. Kruger, Fonda, N.Y.	107.13	Ethel Putnam, Charlestown, N.H.	405.00
Stepped on by cow—inj. toe		Fell in bathroom—broke hip	
John M. Senek, Jr., Ransomville, N.Y.	188.58	David A. McAllister, Acutney, Vt.	619.90
Fell off snowmobile—injured neck		Fell off staging—inj. shoulder	
Eleanor D. Chase, Hannibal, N.Y.	1335.00	Ralph Matthews, Essex Junction, Vt.	1169.23
Fell on ice—injured back		Thrown from wagon—injured back	

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How to use an OPERATOR'S MANUAL

by Wes Thomas

DO YOU realize that the most valuable accessory for your tractor or implement is the operator's (owner's) manual? You may be tempted not to value it highly because you get it "free" with the purchase of a new tractor or implement. However, the proper use of your manual can save you many dollars in repair expense, as well as reduce the lost time waiting for repairs during the busy season.

Whenever a new piece of machinery is delivered, be sure that you get an owner's manual. Immediately record, in the front of the manual, the serial number and date of purchase. Then, file the manual in a safe... but convenient... location.

Here's how to get full benefit from the use of the manual:

Specifications — This is a complete physical description of your tractor or implement. While it may not seem to be the type of information that is vital to your operation of the equipment, it will undoubtedly be a valuable reference in many ways.

For instance, the listing of tractor ground speeds in various gears is important information when you get ready to spray for weed or insect control. With any pesticide, the right amount per acre is great... but too much (or too little) can be costly.

Operating Instructions — If you have previously owned a similar machine, the operating instructions may not seem too important. However, you should take time to read them over. Things may have changed, after all!

Possible Savings

Adjustments — Although this may be a minor item with some of the simple implements, it is a very important section for the complex machines, such as a combine. Correct adjustment may save several dollars worth of extra yield of the crop... and you won't see all those volunteer oats greening up the field in late fall.

Lubrication — The lubrication section will list all of the points to be lubricated, the correct lubricant to use in each case, and the recommended interval between service.

Tires — This section will give you the correct inflation pressure for best performance and tire life. In the case of tractors, it will also provide information on weighting of the tractor by use of liquid in the tires, or cast iron wheel weights.

Schedule

Maintenance and Servicing — This will include such items as spark plug cleaning and adjusting, carburetor adjustment, ignition point adjustment, and air cleaner servicing. Whenever you make any adjustments, be sure to follow the manual directions very carefully. Improper

adjustments will lead to poor performance and increased operating costs... as well as strains on the vocabulary when things don't go right!

Troubleshooting — Most manuals will provide a list of the symptoms of many of the usual difficulties that may arise when you are using the machine. Along with this will be a list of possible causes and the proper way of checking or repairing the difficulty.

Whenever the machine fails to operate just right, and you aren't completely certain of the reason, you'll find that the section on troubleshooting will often enable you to locate the difficulty promptly and get the machine back into proper working order.

Play Safe

Safety Precautions — Most of these are merely common sense applied to machinery operation. However, in some cases a particular machine may require specific safety precautions which are not readily apparent. There are a lot of northeastern farmers who wish they'd read... and heeded... safety instructions about cornpickers!

Repair Parts — No matter how well built, any piece of equipment is going eventually to require repair parts. Some manuals list repair parts by the manufacturer's exact part number. Others will use "exploded"-type drawings with the parts only named. In either case, it's much easier to obtain the desired part by use of the manual rather than attempting to verbally describe the piece to the dealer's parts salesman... especially if you send your wife after it!

Be Specific

The record of serial number and date of purchase can be very valuable when attempting to obtain repairs. The manufacturers often make minor changes during the model life of any piece of equipment... and they identify the time of change in terms of serial numbers. So, if the part you need is one involved in such a change, you must have the serial number to be sure of getting the exact replacement part you need.

Optional Accessories — These are usually listed in the owner's manual. Many of these parts are for use only under certain conditions. These conditions may not occur until several seasons after you have purchased the machine.

An example of this would be a special recleaner for your combine when the grain is especially weedy. If the need for an attachment arises several seasons after purchase, it's convenient to be able to order directly from your manual.

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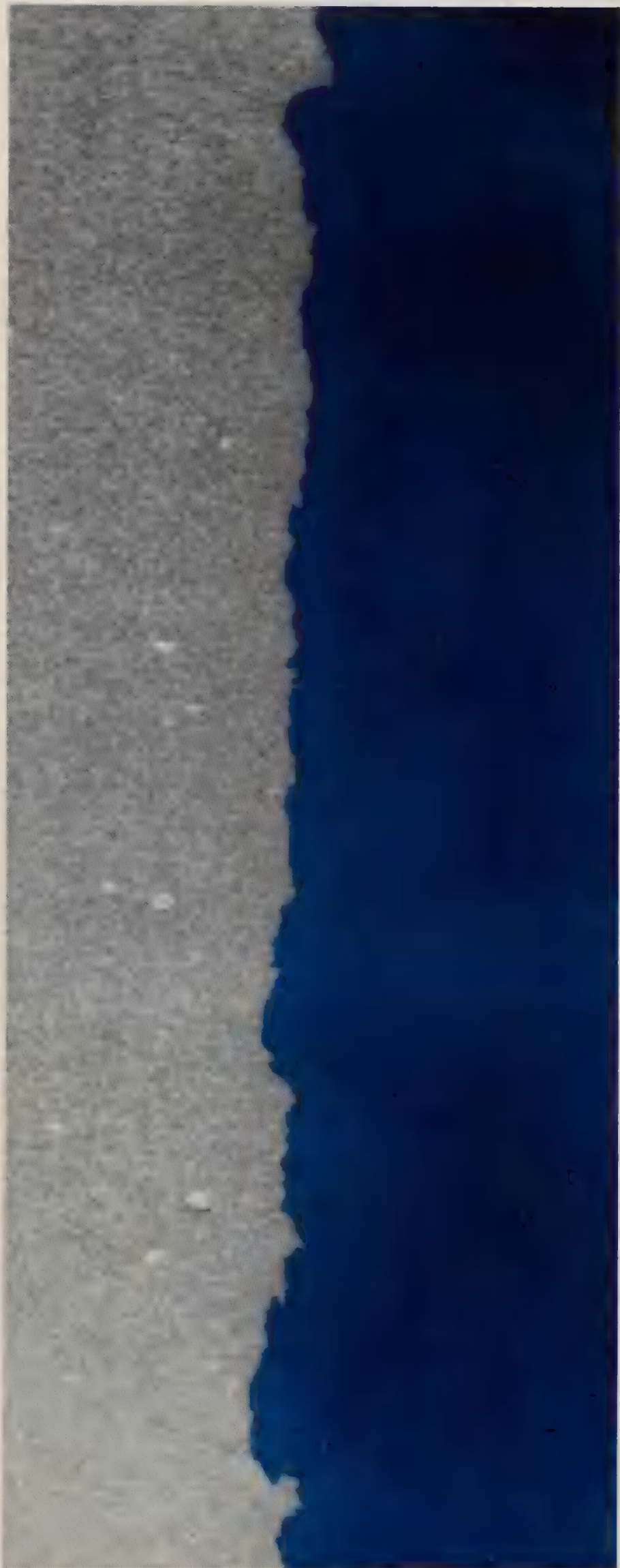
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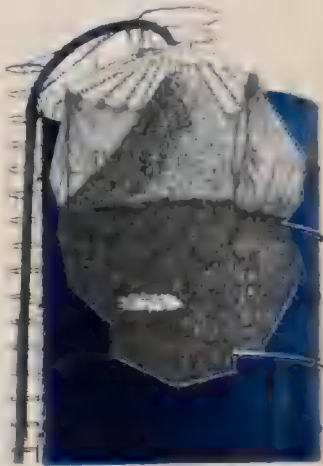
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Agway Farm Enterprise Salesman Bill Moses presents monthly Agway Dairy Feeding Profile to Richard Whitcomb (left) and Leonard Germain (right).

"Total Enterprise Service helps us make more money."

Leonard Germain, Springfield, Vt.

By some measurements, the Valley Brook Farm, located near Springfield, Vt., looks small. Only 70 tillable acres and a total herd of 100 Holsteins, including 60 milking.

But when it comes to profits, Valley Brook looks big. In fact, this farm, managed by Leonard Germain in partnership with his father-in-law, Richard Whitcomb, is more profitable than many over twice its size. Last year's lactations average was over 18,000 lbs.

"Secrets? I don't have any," says Mr. Germain. "I just use my own ideas and other practices proven by nationally known authorities that maximize production and eliminate unnecessary labor.

"Practices like minimum tillage for corn and hay . . . a free-stall barn with milking parlor that lets one man milk the cows in 90 minutes . . . a total dairy ration that increases nutrient consumption and decreases holding time in the parlor.

"Agway Farm Enterprise Service has helped us adapt

these new practices and make them pay off. For planning and problem solving, we get advice of Agway agronomists, nutritionists and other experts whenever we need them. We also subscribe to the Agway Farm Accounting and Dairy Feeding Profiles. These computer reports are indispensable for keeping cost and performance records.

"All considered—the total package of services and products we get with Agway Farm Enterprise Service helps us manage each part of this farm carefully, helps us make more money."

Agway Farmer-Members like Leonard Germain prove you don't have to be big to be profitable—or be big to get the help that comes with Farm Enterprise Service.

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Loader speeds preparation of total dairy ration.



Valley Brook Farm in autumn.



Mr. Germain collects sample for Agway forage test.





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Agway Farm Enterprise Salesman Bill Moses presents monthly Agway Dairy Feeding Profile to Richard Whitcomb (left) and Leonard Germain (right).

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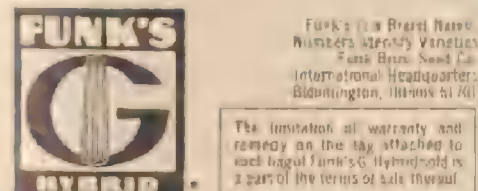
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Vol. 169, No. 3

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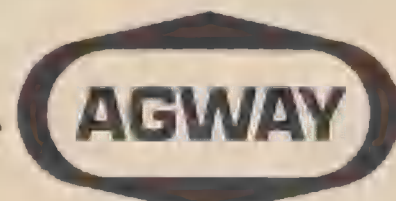
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ECOPERSPECTIVE

Norman Borlaug won the Nobel Peace Prize in 1970 for his work in the Green Revolution . . . specifically, his part in the development of high-yielding wheat varieties that have brought more food to millions of people in the underdeveloped nations of the world.

Here are excerpts from his speech entitled, "Mankind and Civilization at Another Crossroad," the 1971 McDougall Memorial Lecture at the international conference of the Food and Agriculture Organization of the United Nations.

THE Green Revolution has won a temporary success in man's war against hunger and deprivation. It has given man a breathing spell. If fully implemented, it can provide sufficient food for sustenance during the next three decades. This could, hopefully, provide man time to bring into reasonable balance population growth and man's responsibility for providing a decent standard of living to all who are born into this world.

The continued success of the Green Revolution will hinge, however, upon whether agriculture will be permitted to use the inputs . . . agricultural chemicals, including chemical fertilizers and pesticides . . . absolutely necessary to cope with hunger. If agriculture is denied their use because of unwise legislation that is now being promoted by a powerful lobby group of hysterical environmentalists . . . who are provoking fear by predicting doom for the world through chemical poisoning . . . then the world will be doomed, not by chemical poisoning, but from starvation.

Diverse Group

The people making up the so-called environmentalist movement of today are of very diverse origin. The greatest number of this movement are urbanites who have recently rediscovered the beauties of nature. Most of them have lived in large cities for one, two or three generations. They come from all walks of life.

They all have several things in common. Among them is the concept . . . that has persisted since their parents, grandparents or great-grandparents "escaped from the dreadful life in the country" . . . that all people who continue to live in the countryside are dullards and country rubes. Unfortunately, this disdain for rural people still persists.

Within the past 15 years, there has been a growing exodus of weekend visitors and vacationers from the cities into the countryside. This

does not happen now on only the annual vacation, as was the case before World War II, but happens several or even many times each year.

The number of trips and excursions into the countryside is greatest in the developed countries, and especially in countries like the U.S.A., Sweden and other privileged western European countries. It is also in these countries, and especially in the U.S. and Sweden, where the environmentalist movement is strongest and most vociferous.

We must understand why these privileged vacationers abandon the cities as often as possible before we can comprehend their actions in the environmentalist movement. By leaving the large urban centers, they are escaping from the industrial and automotive smogs, the traffic jams, noise, stress, crowding, crime and the stinking sewers, rivers and harbors.

The "escapees" who come to the countryside on vacations are rediscovering nature. They are falling in love with the blue skies, the fresh air, the clean water of the streams, the verdure of the landscape, the beauty of the trees and flowers. They thrill to the song of the meadow lark, bobolink, oriole, to the call of the bobwhite and the loon and to the crowing of the ring-neck cock. They are fascinated and invigorated by the changes in seasons and by many other marvels of nature.

They are motivated. They want to do something, to join some organization so as to preserve this beauty so that it does not degenerate into the ugliness of the large metropolis, where they are imprisoned most of the year. It is obvious to most that the first thing that must be done is to protect nature from the brutes and despoilers; the "hayseeds" (farmers), the "cowpokes" (ranchers) and the "jack-pine savages" (lumbermen and pulpwood producers) who "do not appreciate its beauty and will destroy it if left unfettered."

They fail to realize that they are themselves some of the worst despoilers of nature. They litter the countryside with beer cans, soft drink bottles, waste paper, garbage and refuse of many other kinds. They inadvertently set forest fires, frighten wildlife and add general noise and confusion to the countryside. Although they are oblivious to their own effects on the environment, they are generous in their criticism of the farmer, rancher and lumberman.

The result of this attitude has been that agriculture (farming, ranching and forestry) has been placed much too high on the list of despoilers of the environment. Whereas these urbanites who have rediscovered the beauties of nature should be the first to insist on correcting the abuses of dumping of city sewage and industrial wastes into our rivers, lakes, harbors and oceans, and reducing the pollution of the atmosphere around our cities from industrial and automotive smog, they instead insist on oversimplifying and want to make a scapegoat of farmers and ranchers as the great public enemies.

Unorganized

Perhaps this is because the unorganized farmers and ranchers are much easier to attack legally than are the large cities and industries who are the worst polluters, and to which these same urbanites each contribute their own bit each day. Besides, corrective measures would increase their own taxes!

It never occurs to the environmentalists and members of these groups that these "dullards and despoilers of nature" are the same people who provide their food, building materials and paper at very low costs. So the problem, for them, is simple: How can we prevent nature from being raped by these vicious enemies?

The current vicious, hysterical propaganda campaign against the use of agricultural chemicals, being promoted by fear-provoking, irre-

sponsible environmentalists, had its genesis in the best-selling "half-science-half-fiction" novel *Silent Spring*, published in 1962. This poignant, powerful book . . . written by the talented scientist Rachel Carson . . . sowed the seeds for the propaganda whirlwind and the press, radio and television circuses that are being sponsored in the name of conservation today, but which are to the detriment of world society, by the various organizations making up the environmentalist movement.

It is both sad and unfortunate that *Silent Spring* was the last book written by this gentle, great scientist and authoress. She had previously contributed so much to the understanding of the beauties of nature in the best sellers *Under the Sea Wind*, and *The Sea Around Us*.

Shaky Bible

Silent Spring has become the Holy Writ of the environmentalist movement. This distorted, oversimplified book of biologic half-truths is now required reading in many high schools, thanks to the influence of our environmentalist organizations. Rachel Carson has become a martyr.

The moving forces behind the environmentalist movement today include the Sierra Club, National Audubon Society, Isaac Walton League, the Boone and Crockett Club, and the new legal arm of the movement: the Environmental Defence Fund, with its scores of lawyers baptized into the movement with the motto "Sue the Bastards." The principal individual supporters of the movement are wilderness explorers, bird-watchers, wildlife lovers, ill-informed press and television personalities and confused youth and older members of society who have been frightened so badly by the doom-sayers that they have joined.

Although the collective active membership in these organizations is perhaps less than 150,000, their tactics and superb organization make

(Continued on page 6)

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the broadleaves, destroying weeds as they sprout, with no gambling on rain to get results. Surface-applied herbicides often fail without rain.

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Sutan from 

(Continued from page 4)

them an extremely effective force in lobbying for legislation to ban pesticides, and for brainwashing the general public.

The scare tactics used by the Environmental Defense Fund, based on bits of unsubstantiated scientific data, questionable ethics, emotion and oratory, have been used very effectively for raising funds and gaining support for their battle against DDT. One of their advertisements in The New York Times . . . March 29, 1971 . . . headlined, "Is Mother's Milk Fit for Human Consumption?" was especially effective. It stated that DDT has been found in mothers' milk. No mention was made of the

fact it was present at very low levels.

Of course, no mention was made of the fact that caffeine, nicotine or alcohol in small quantities might also be present in mother's milk when she drinks coffee, smokes cigarettes or drinks cocktails. Nevertheless, the report of detection of DDT in mothers' milk provoked indignation and brought in much financial support.

No Hazard

Previously, both the Environmental Defense Fund and the National Audubon Society had stated that DDT causes cancer, even though the Surgeon General of the U.S. Public Health Service has stated: "We have no information on which to indict DDT as a tumorigen or

carcinogen for man and, on the basis of the information now available, I cannot therefore conclude that DDT represents an imminent health hazard."

The gravest defect of *Silent Spring* was that it presented a very incomplete, inaccurate and oversimplified picture of the needs of the interrelated, worldwide, and complex problems of health, food, fiber, wildlife, recreation and human population. It made no mention of the importance of chemicals such as fertilizers and pesticides for producing and protecting our food and fiber crops. Nor did it mention that by producing more food per unit of cultivated area, more land would be available for other uses, including recreation and wildlife.

Certainly the greatest inexcusable error of omission was that of neglecting to mention the valuable role DDT has played in bringing malaria under control in many countries.

Balance of Nature

Silent Spring convinced the general public that the use of pesticides . . . and especially DDT . . . was upsetting the "balance of nature" and was doing great damage to wildlife, especially birds and fishes. It implied that a number of species were facing extinction because of its use. Moreover, it left the impression that agriculture really did not need insecticides if it changed its methods.

I am in complete agreement that we should try to preserve all forms of wildlife as part of our heritage, as far as it is possible to do so. On the other hand, let us not become egotistical to the point of assuming supernatural powers. A glance at the book of rocks tells us of the impotency of many species, including man, against the forces of nature.

Yet it is incredible that only a few, if any, of the leaders of the current environmentalist movement have studied paleontology, and the "parade of the species," in the geologic past. Spencer estimates that 99 percent of all the species that have lived, since the candle of life was first lit on the planet earth about 3.2 billion years ago, have flunked the adaptation imperative: "evolve or perish," and consequently have now become extinct.

The multitude of changes in the physical features of the earth, as well as in our solar system itself, have repeatedly greatly modified the environment of the earth. Climates have changed time and again in many parts of our world. Vast areas that once possessed tropical climates have subsequently been covered by continental ice sheets. Areas that once were blessed with heavy rainfall have become desert, and vice versa. These changes in environments have, in turn, exerted strong selection pressure on the evolution of all forms of life.

Birds

In the past three or four years, there has been much propaganda . . . but little convincing scientific evidence . . . put forward by environmentalists indicating that DDT has contributed to the decline of the bald eagle, peregrine falcon, American osprey and California condor. One does not need a thin-eggshell hypothesis due to DDT to explain the reduction in the population of these species.

The truth of the matter is that many ornithologists had reported on the reduction in populations of these large birds of prey as far back as the 1880's and 1890's, long before the time of DDT. It is almost a foregone conclusion, for anyone who uses some common sense, that one or more of these species are about to flunk the imperative "evolve or perish." Their habitats are being destroyed by the encroachment of man!

Protective legislation alone will not, in most cases, be adequate to save them. Dynamic research, propagation and good sound game management might do so, providing human population pressures on

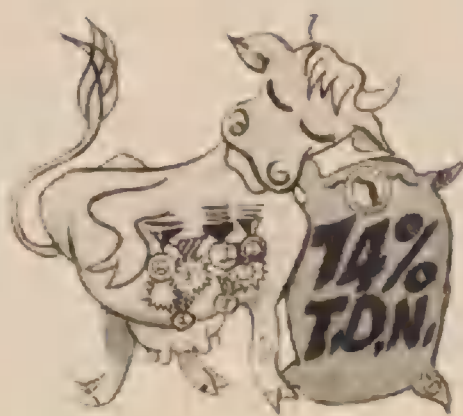
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their habitats are not too great. It is hard to understand why the conservation organizations and environmentalists have taken a negative rather than positive view in trying to protect wildlife. Why have they not promoted research, and fought for more funds for game management in general? Why have they not fought for more funds for research so that qualified scientists can be assigned to study the reasons why certain threatened species are on the verge of extinction, and whether it is feasible to try to save them?

Why have they not been aggressive in obtaining funds to study the biology of the "red tide" that periodically takes a tremendous toll of thousands of tons of fish in the coastal

waters of the U.S., instead of spending their time and energies crying "the villain" at DDT or mercury whenever they see a few dead fish in one of the lakes or rivers? Why do they not spend more of their energies and funds on educating the public on the adverse effects of population pressure and rampant population growth on wildlife and the environment?

How many of the U.S. public, for example, know that more than 100,000 deer are killed each year by automobiles, whereas everyone is informed in the press or television whenever a few birds or fishes are found dead, presumably...but not necessarily proven...from a pesticide? Imagine the rhetoric that would be produced if 100,000 deer

were killed by a pesticide!

It is now obvious that the current aim of the Environmental Defense Fund and its affiliated environmentalist lobby groups is to ban DDT, first in the U.S.A. . . . and then in the world, if possible. But DDT is only the first of the dominoes. It is the toughest of all to knock out because of its excellent known contributions and safety record.

As soon as DDT is successfully banned, there will be a push for the banning of all chlorinated hydrocarbons, then in order, the organic phosphates and carbamate insecticides. Once the task is finished on insecticides, they will attack the weed killers, and eventually the fungicides.

If the use of pesticides in the

U.S.A. were to be completely banned, crop losses would probably soar to 50 percent, and food prices would increase 4 to 5-fold. Who then would provide for the food needs of the low-income groups? Certainly not the privileged environmentalists!

I repeat what I have said many times before: Without thinking, conservationists and environmentalists (both in and out of government) . . . and only partially-informed people in the communications media . . . have embarked on a crusade designed to end the use of agricultural chemicals, such as pesticides and fertilizers. They give no thought to the end result of such action: the eventual starvation and political chaos that will plague the world.

Dates to Remember

Mar. 6-11 - Pennsylvania Home and Garden Show, Farm Show Building, Harrisburg, Pa.

Breeders Institute (sponsored by Holstein-Friesian Association of America, but of interest to all dairymen). First location each day is from 1:30 to 3:30 p.m.; second from 8:00 to 10:00 p.m.

Mar. 13 - Canton Ag. & Tech., Canton
Cayuga County F&H Center, Auburn

Mar. 14 - Elks Club, Sidney
Hoosick Valley School, Schaghticoke

Mar. 15 - F&H Center, Millbrook
1 Oxford Road, New Hartford

Mar. 16 - Grange Hall, Falconer
Holiday Inn, Geneseo

Mar. 18-26 - New England Spring Flower Show, Commonwealth Armory, Boston, Mass.

Mar. 21-23 - Annual Roadside Conference of New York-New England Apple Institute, University of Massachusetts, Amherst, Mass.

Mar. 21-23 - Beef Cattle Conference, Penn State, University Park, Pa.

Mar. 22-24 - Farm Electrification Council Meeting, Cornell University, Ithaca, N.Y.

Mar. 24-26 - Annual Pennsylvania Maple Festival, Meyersdale, Somerset County, Pa.

Mar. 25 - New York Hereford Association Spring Sale, Ithaca, N.Y.

Mar. 28-30 - Swine Producers Short Course, Cornell University, Ithaca, N.Y.

Mar. 28-30 - Swine Management Conference, Penn State, University Park, Pa.

Apr. 6 - Agricultural Leaders Forum, Cornell University, Ithaca, N.Y.

Apr. 6-9 - International Salon of Farm Machinery, Place Bonaventure, Montreal, Quebec

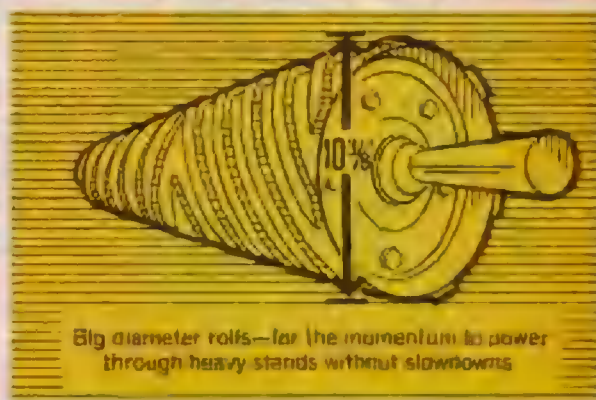
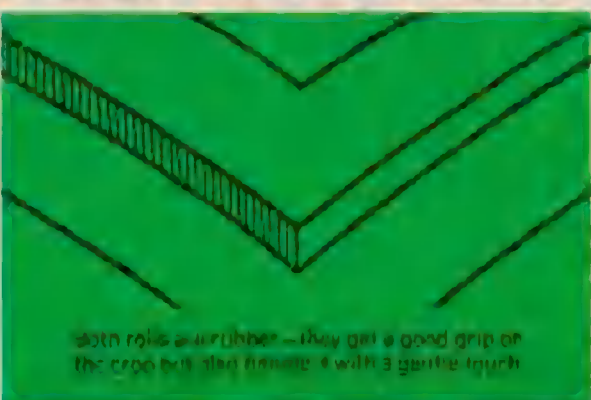
Apr. 7-9 - Annual Franklin County Maple Festival, St. Albans, Vt.

Apr. 8 - Annual Meeting NYS Jersey Breeders Cooperative, Holiday Inn, Thruway Exit 39, Syracuse, N.Y.

Apr. 8-9 - Central New York Maple Festival, Marathon, N.Y.

Apr. 12 - Annual New England Dairy Feed Conference, Hotel Phoenix, Boston, Mass.

American Agriculturist, March, 1972



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They're rubber—both of them. Their exclusive chevron treads *intermesh* like gears as they turn. They're giant-size (10 3/8 inches in diameter) and rotate at very high speed (646 rpm).

With rolls like this going for you, you'll aim your Haybine at the heaviest stands with complete confidence. And know you're turning out fluffy, fast-drying windrows.

And best of all, these exceptional rolls are "packaged" in a machine that's solid all over to give you long years of dependable service. That's why more farmers buy Haybine mower-conditioners than any other brand.

There are three models to choose from: a self-propelled and a pull-

type that are 9'3" wide and a smaller pull type that cuts a 7'3" swath.

Shouldn't you pay a call on your New Holland dealer before getting all wrapped up in this year's haying? Remember, if it isn't New Holland, it isn't a genuine Haybine.

SPERRY RAND

NEW HOLLAND

Proven in action—dependable in action

Doc Mettler Comments on:

the dry cow



HOW many cows will you be drying off in March, April and May? If your milk goes into a market where money is taken out on milk produced during these months, and paid back on milk produced in mid-summer and early fall, you probably have quite a few. To make money on this sort of thing, your cows must produce all they are capable of dur-

ing the hot months. You are probably planning on this by having adequate feed and a cool, airy place for them to eat it.

You can also help your cows produce more the next lactation by the way you handle them when they are dried off. What you do and how you do it during the two months prior to freshening can make much

difference in production.

To start out with, we come up with the question, "How long should a dairy cow be dry?" The answer given by most authorities is simply "sixty days." When we attempt to find out why, we can get into all sorts of interesting side subjects.

If one consults the literature on the subject, he finds there are reasons why a cow must have 60 days dry to secure maximum production. On the other hand, if a veterinarian or any other cowman thinks over his past experience, he can come up with exceptions leading him to believe that, in some cases, the stress of drying off a persistent milker is harder on the cow than the lack of rest.

Let's talk about the scientific

literature first. In 1943, the *Journal of Dairy Science* published the results of work by J. W. Klein showing that a non-lactating period of 55 to 60 days was the optimum for maximum production during the next lactation. Nothing to dispute this has come out since then, but other work supports this with reasons. To understand the reasons, we must go back to the initiation of milk production in the heifer.

Duct System

The virgin heifer has a fat pad for an udder. Each time she is in heat the hormones secreted at that time cause a duct system to start to develop, and eventually, a few milk-secreting cells. During her first four months of pregnancy, the duct system develops even more.

You probably remember that milk secretion starts in tiny, cell-lined sacs called alveoli, where it is stored. At let-down it goes to tiny tubes (or ducts) which lead to larger ducts, and finally reaches an open space above the teat called the cistern. At four months pregnancy, these tiny alveoli are produced in abundance, apparently from fat cells. All this takes place by the influence of hormones and continues until the calf is born.

Three main hormones are involved, estrogen being the first, then progesterone, and at calving the progesterone level falls rapidly and the lactogenic hormone takes over to stimulate milk secretion.

A fourth hormone, oxytocin, then causes the tiny muscles around the alveoli to contract and force the milk out. This you commonly refer to as let-down.

A fifth hormone, thyroxin, is sometimes involved. Through its effect on metabolism, thyroxin can increase milk production. You are all familiar with a sixth hormone, adrenaline (or epinephrine), which will cancel out the effect of oxytocin. This hormone is produced by the adrenal gland when the cow becomes frightened or is in pain.

Now, what has all this to do with the dry period? At drying off time in a non-pregnant cow, the udder re-absorbs the milk left in the alveoli, and the alveoli themselves disappear, leaving only the ducts and fat. Another pregnancy will cause the milk secretion process to start all over again.

In the pregnant lactating cow, milk production begins to drop rapidly at about five months after

(Continued on next page)



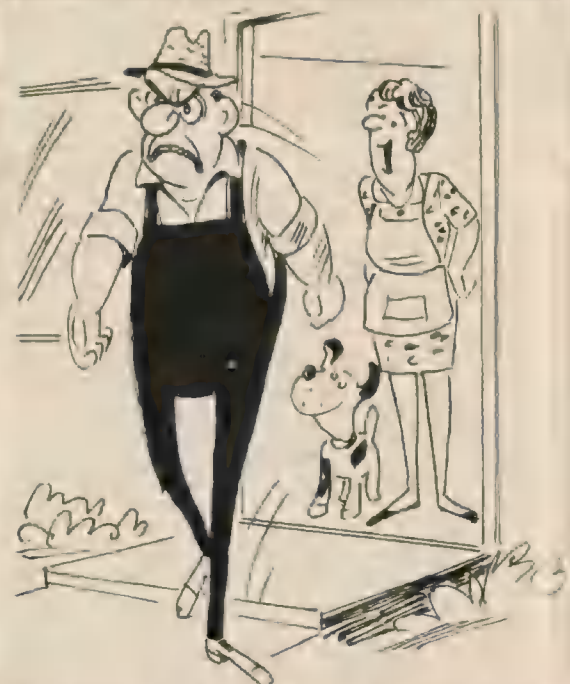
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"I'm not saying you don't use a deodorant, Fred! I'm saying it just doesn't do the job for you!"

American Agriculturist, March, 1972

conception, but the alveoli do not entirely disappear. They just secrete less because the progesterone (produced by the corpus luteum of pregnancy) cancels out the effect of the lactogenic hormone.

In a normal pregnant cow during the dry period, some of the fat cells near the outside of the udder become milk-secreting alveoli, much as they do in a heifer. Each dry period until about mid-life in the normal cow, more milk-secreting tissue forms, and we can, then, expect higher production each lactation. The alveoli that are present, if not damaged by mastitis or from too long a dry period, stay and produce milk at freshening, too.

From what I can find in research literature, therefore, it appears that too short a dry period will cause fewer new alveoli to form, perhaps because of the effect of the oxytocin secretion at each milking.

Balance

This factor . . . that each hormone has a balancing effect on the others . . . is an interesting study in itself. We need to know more about this if we are to breed and feed cows to top production. Too long a dry period may cause too many alveoli not to return to production, and, of course, feeding a dry cow more than two months becomes expensive.

As I said earlier, no matter what the literature says, we know from experience that there are exceptions. This may be because the literature is based on normal cows and you and I are apt to sometimes see abnormal animals. Many dairymen today do not worry about drying off cows if they are in high level of production (50 or more pounds per day) 60 days prior to calving.

This type of cow probably has an unusually high level of the lactogenic hormone, and perhaps thyroxin. Starving her into going dry may do more harm than good. If you feel you must dry her, put her on coarse, poor-quality hay and restrict the amount of water. In some cases, this is all that's needed.

As far as milk quality is concerned, any cow that goes below 20 pounds of milk a day (or in the case of the high-fat breeds, 15 pounds per day) should be dried off. The usual procedure in mastitis-free cows is just to stop milking them for a week, but to continue to dip the teats each milking period.

In fact, if you ever dip cows' teats at all, this is the important time to do it, since more mastitis organisms

enter the cow's udder during the beginning of dry period than at any other time.

At the end of a week, milk the cow dry and infuse all four quarters with a product recommended by your veterinarian. Then be sure to dip twice a day for another week. If by that time the udder is completely slack and soft, leave her alone. If cows were troubled with clinical mastitis or do not dry off well, ask your veterinarian to infuse them a second time or recommend a more effective treatment.

I have seen many cows milking up to 40 pounds a day dried off this way with no problem. However, if your system is to skip one milking, then two, etc., until you have them dry, or to infuse and turn out, and

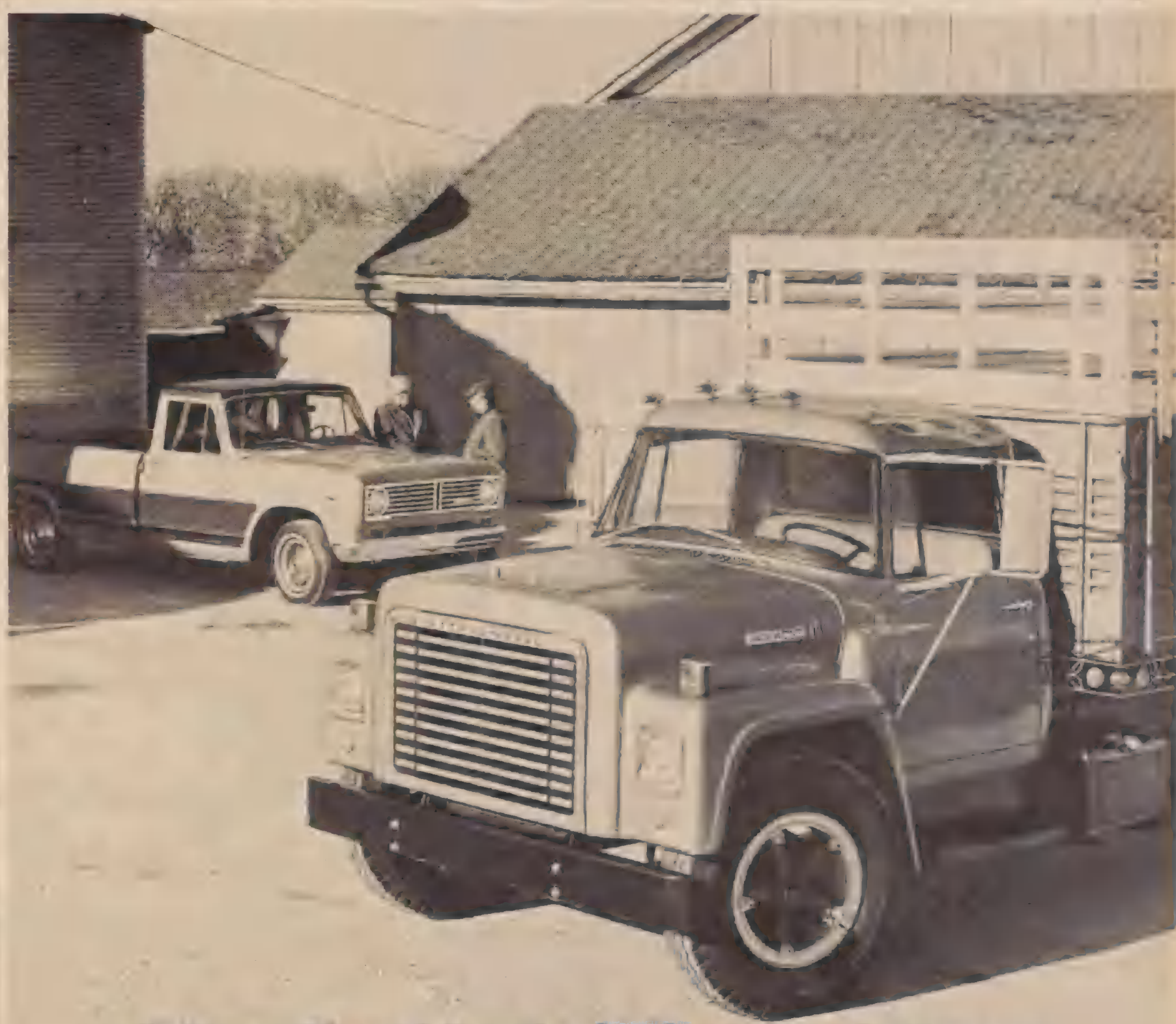
you are getting good results, don't change. Once you start to skip milking, discard the milk; it is no longer fit to ship because of its flavor and high leukocyte count.

The only addition I would recommend to any system that works is dipping cows with a good after-milking teat dip the first few milkings after starting to dry. In fact, anytime you start the milk on a dry cow, wipe the teat clean and dry with alcohol, then dip and continue to dip for several days. I have seen too many cows "blow" after removing the seal in the teat canal, and leaving a drop or two of dry-cow secretion stuck to the end of the teat.

The dry period is a good time to have your veterinarian surgically

remove warts or flaps of skin, and/or patch up holes in the side of a teat that interfere with normal milking. Some leakers can be treated by your veterinarian during the dry period by injecting initiating substances in and around the sphincter muscle. This is easier said than done, but if it works one time in ten it's worth a try. Opening a hard-milking teat cannot be done during the dry period; it's best done at freshening time.

Besides the cow's udder needing a rest and change during the dry period, her digestive system also may need rest and some changes to get ready for the next lactation. Some of the reasons for this are just as interesting to study as the reasons for resting the udders.



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"Mom joined women's lib for one day. The day she made Dad do the dishes and he made her clean the barn."

American Agriculturist, March, 1972

EDITORIALS

by GORDON CONKLIN



RECYCLING MANKIND

In modern terminology, the word "recycling" has a specific meaning . . . having to do with the re-use of waste products. But a look at publications from years long gone indicates that the affairs of mankind are recycled, in a different sense, for there is so much that repeats itself from generation to generation.

For instance, the editors of the publication *Nation's Business* took a look recently at issues of that magazine published in 1922. What was of concern to businessmen . . . including farmers . . . 50 years ago?

Well, they were worrying about depressed business conditions, especially concerning farmers. The price of corn . . . now get this . . . was at 17.5 cents per bushel, down from 77 cents only six years earlier. Farmers had not yet been trained to belabor the USDA for such price catastrophes, but they hurt financially just as much then as they do now from the corn prices resulting from the bin-busting corn crop of 1971.

The Secretary of Treasury back in 1922 was quoted as saying about the federal budget, "The nation cannot continue to spend at this shocking rate!" Now the \$5.5-billion federal budget then doesn't look very "shocking" to us who are already used to the \$200-billion-plus budgets of our national government . . . but the taxpayers then had to scramble just as hard as we do to keep ahead of Uncle Sam's ardent pursuit of our earnings.

Huston Thompson, a member of the Federal Trade Commission, must have been the Ralph Nader of the early 20's. He was solemnly warning businessmen that the consumer was thoroughly mystified about many products, and needed more information.

Although farm prices were sliding off disastrously, farm costs were rising. Increasing freight rates were having an especially dismal effect on agricultural business.

The names, the faces, and the slogans change . . . but many of the issues remain the same!

NO-FAULT ON THE ASPHALT

Two northeastern states . . . Delaware and Massachusetts . . . are among the five who have adopted no-fault automobile insurance. It's sure to be a topic of controversy in several other state legislatures of the Northeast in 1972.

In a time when automobile accidents in the U.S. are soaring (more than 50,000 people killed, and 5 million injured annually), the cost of automobile insurance has been soaring too. Thus, when states like Massachusetts report substantial savings to auto owners through no-fault insurance, everyone sits up and takes notice.

At present, the typical system in most states forces a person injured in an automobile accident to prove that the other driver was at fault . . . in order to get any compensation from that other driver. This usually involves a costly lawsuit, and crowds the court calendars right to the walls, so that settlements may take years to run through the mill. Lawyers do very well financially under this system, and therein lies one of the problems.

The New York State Legislature, for instance, is dominated in numbers by legislators who are also attorneys. Naturally, the legal fraternity does not exactly leap for joy at the prospect of passing laws that in effect would make unnecessary a massive chunk of the legal wrangling for which attorneys are now handsomely paid.

However, the appeal of no-fault insurance to the rank and file of voters is very strong. Premium reductions have been almost spectacular in the Bay State in the early stages of no-fault, and insurance experts predict a 10 to 15 percent reduction in rates over the long haul. Governor Sargent dropped a bombshell when he announced late last year that personal-injury auto insurance premiums would drop by 28 percent in Massachusetts because of the introduction of the no-fault concept.

Under no-fault coverage, your insurance company pays you for medical expenses, lost wages and other economic losses (up to specified limits) in the event of an automobile accident. The other driver's company pays his economic losses, regardless of who was at fault. Each driver remains fully responsible before the eyes of the law, however, for any criminal charges that may stem from the accident . . . and recovery for pain, suffering, inconvenience and other "intangible" damages (as well as damages beyond the legal no-fault limit) can still be sought in court, and still requires proof of fault.

If your state legislature is considering no-fault automobile insurance, you have a golden opportunity to press for this forward step. It will save you money now, and can also provide faster justice by helping to clear the logjams in our courts.

In New York State, the legislators and the Governor have stuck it to us already in the form of substantial tax increases . . . and they owe us a loosening of the thumb screws somewhere. No-fault insurance looks to me like their best bet!

DIMETHYL WHO?

Massive indifference predictably greeted the recent announcement that a potent cancer-causing agent (dimethylnitrosamine, or DMN for short) has been positively identified in tobacco smoke. Confirmation of DMN content was done by Dr. Phillip Issenberg of the Massachusetts Institute of Technology.

How come, I muse, that pesticides can stir up such a fuss among environmentalists . . . yet the only guy sounding off about cigarettes continues to be the Surgeon General? Where are the protest marchers, the sinner-inners, the people who make a profession of protesting so vociferously the evils of our society?

Out having a smoke, I suppose.

UNDERGROUND PREDICTION

Agricultural engineer R. Z. Wheaton of Purdue University reports that about 40 percent of the underground field drainage in Indiana is being installed in the form of plastic tubing . . . and predicts this will surpass 50 percent in 1972. Plastic tile has caught on there far more rapidly than he had expected.

Plastic tiling systems cost about the same for materials as do clay or concrete tile systems. But the far lighter plastic costs much less to transport . . . and it requires a lot less sweat to install! A 250-foot coil of plastic tubing weighs only a few pounds; the weight of clay tile by contrast is usually computed in pounds per running foot.

Here in the Northeast, not much plastic tubing is being used . . . except perhaps in the sandy soils of New Jersey . . . partly because REAP (formerly ACP) cost-sharing payments are avail-

able in only limited instances. The Soil Conservation Service writes the specifications as to the conditions under which plastic tile can qualify for REAP payments, and those specifications have appeared to be unusually restrictive.

I'd raise the question as to whether we should insist that tile lines be designed to last for 4 years . . . or whether farmers in a fast-moving age should instead be encouraged to use material with maximum labor efficiency, regardless of some structural limitations.

I'd also ask farmers why they tend to limit the installation of any kind of tile to REAP-approved footages . . . rather than recognizing the profit potential of the practice even without government payment. Sometimes I think the one negative legacy of government cost-sharing practices has been to hobble some farmers in an awfully small farm-management corral!

My prediction . . . within five years' time, the Northeast will see a lot more plastic tile going into the ground each year!

AN AVERAGE GUY

An "average" person has been defined as either the louisiest of the best, or the best of the louisiest. The arithmetical average is at exactly the dividing-point between the below-average individuals and the above-average ones.

In trying to sort out reasons for wide variation in success among New York State dairymen, researchers at Cornell used information derived from the business records of 509 dairy farms for the calendar year 1970. They chose four factors that appear to be correlated with level of income:

- size of business, as measured by number of cows
- labor efficiency, in terms of pounds of milk sold per man
- cost control, expressed as the percent purchased feed was of milk receipts
- rates of production, measured by pounds of milk sold per cow

There were 50 farms where these measures revealed that all four factors were above average . . . and labor income averaged \$19,181 per operator! Three factors were above average on 114 farms; labor income \$10,936. Income dropped steadily as the above-average figures dropped to two, one, and finally to those six farms where no above-average indicators were found (and labor income per operator averaged only \$3,682).

Apparently, a dairy farm business needs to be above average in at least two factors if the farmer is to get an income higher than the wages of a capable hired man. The figures dramatize the importance of heads-up management in all parts of the business . . . in the barn on the crop fields, at the desk pushing the budgeting pencil.

If only one stave in the barrel is short, it's impossible to fill the barrel . . . regardless of how high all the other staves may be!

SPRING IS HERE

Took an early-morning walk the other day to feel the pulse of spring. The crows announced my coming along the edge of the woods where buds swelled with eagerness to burst their scaly shackles. Soon, I knew, the brush-fire of returning life would sweep its mantle of green across the rolling hills.

Overhead, a "V" of geese noisily debated whether to stop at last year's unplowed corn field for food, or go on to a nearby lake to rest. The soil sent up to my nostrils the subtle promise of an abundant harvest yet to come. Beside a giant oak, I paused amidst the dawn to give thanks for the privilege of being a participant for a time in the wonder of it all.

American Agriculturist, March, 1972

New Idea's Hay Thing

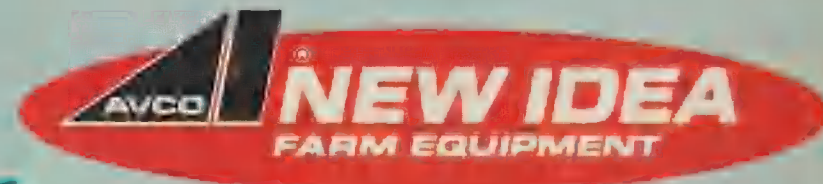
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What else can you call a nonstop, plug-free machine that mows, conditions, windrows or swaths . . . even in long, rank, down hay that causes plugging in sickle bars . . . and costs from \$475 to \$650 less? Adding to its value, it also cuts weeds, shreds stalks, trims pastures, cuts and conditions straw for easier baling!

We call it our Cut/ditioner. Some farmers call it their Hay Thing. It gives them fluffy swaths or windrows. The hay is good quality. Soft. Palatable.

Anything this good deserves to be looked into. And one look will show you another strong advantage too. The simple design results in less maintenance and service. No knife sections to sharpen or replace. No guards to straighten. So stop in. Take a look. Or better yet—ask a farmer who owns one. Find out if you really need a \$2,500 machine to get your haying done. The New Idea Hay Thing. (Costs from \$475 to \$650 less!)



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HIGH-RISE HOUSE

On State Route 96A a few miles west of Interlaken, New York, is a sign proclaiming "Inter-Lakes Poultry Farm, Bob and Carol Voorhees." Two buildings here house 45,000 layers . . . 33,000 in a high-rise (sometimes called wall-to-wall) building measuring 40x408 feet . . . and 12,000 in a full-stair-step structure.

The high-rise building has a battery of fans along the west wall of the manure pit, which is toward the prevailing wind. "There are two reasons for this," Bob comments. "We didn't want to push exhaust air directly into the public highway running alongside the building . . . and we didn't want to exhaust it right toward the vicinity of our second poultry building just across that road. I admit that most engineers would recommend having the fans on the side away from the prevailing wind, but ventilation hasn't been a problem the way we have the fans located."

Problem

A problem did develop in the manure pit, though. Birds went into the high-rise for the first time on February 20, 1971 . . . and by the summer of 1971, the manure in the pit was much too sloppy. "We'd been told that extra fans in the pit itself were not necessary," Bob comments, "but our experience tells us they are."

So eight fans (each 36 inches in diameter) were installed in the pit . . . moving air across the manure in a counter-clockwise direction as viewed from above. This modification appears to have cured the problem. Manure now maintains a consistency allowing it to mound up under each row of cages, which in turn creates more surface exposed to the air than if it slumped into a slurry.

The other initial problem with the setup involved the water system. There are ten watering troughs the length of the building, each equipped with three floats for maintaining an appropriate water level. There were beaucoup problems, however, until the float boxes were more rigidly secured to the cage assembly so that water levels didn't vary according to the "tilt" of the moment.

"When you have the water trough immediately above the feed trough . . . which is in turn right above the egg-collection belt . . . then an overflowing water system can strain your vocabulary!"

Nine Birds

Cages measure 18x24 inches, nine birds per cage. By the way, two cages also include a rooster among the occupants . . . their clarion call evokes a bit of nostalgia for the typical farm flock of years gone by.

The Voorhees operate on a three-way contractual basis with their feed supplier and hatchery, the latter

two supplying most of the capital. "Sure, we may not have some of the management independence enjoyed by egg producers who are not integrated with other parts of the industry . . . but our arrangement makes capital more readily available, and spreads the risk around."

Being in the egg business is a tradition of long standing in the Voorhees family; Bob's great-grandfather produced eggs in the same area. His father, Percy, has accumulated the years for official retirement, but continues to lend a hand on nearly a full-time basis. Other help includes two high-school boys, and one high-school girl, on a part-time arrangement.

Most eggs go ungraded to a central grading facility; a few are sold at a self-service egg stand at Percy's farmstead. Egg belts are operated twice a day, delivering eggs to a machine that orients the eggs, and lines them up so a pneumatic device can pick them up for transfer to flats. Bob uses numbered Easter eggs (made of colored plastic) to place in the far end of egg belts so he can tell when each has completed a cycle.

"If everything goes right," Bob comments, "our egg business isn't a tough job." As every poultryman can attest, everything doesn't always go right . . . and then the ingenuity and perseverance of folks like the Voorhees combine to weather the storm. — G.L.C.

ENJOY THEIR WORK

The Sunny Prairie Farm is operated by Stanley Trombly and his son Stephen near Milford, New Hampshire. Although located in a pleasant rural valley, the farm is in an area feeling steady urban pressure . . . some industrial and commercial sites have sold in the vicinity for as much as \$10,000 per acre.

For now, though, Stanley and Steve are more interested in dairy farming than in land speculation. They have 150 milking cows . . . with the herd partially housed in a barn having 104 free stalls, and part in the older conventional barn. All cows are milked, though, in the double-seven herringbone milking parlor equipped with weigh jars on all seven milker units. Rolling herd average is now 14,042 pounds of milk, 525 of fat.

The parlor floor was pitched when built so that wastes could be flushed easily to the 1,500-gallon septic tank and attached leach field. Unfortunately, the arrangement hasn't worked as well as hoped.

Steve comments, "I think the tank should be a lot bigger, maybe 7,000 gallons. We had to pump out the present tank every two months. If we were building again, we'd put a grate-covered drain in the parlor."

(Continued on page 15)

but fix it so manure couldn't get into the line going to the tank."

One tank that is working well here is a 2,000-gallon one for distributing molasses on top of corn silage in the feed bunk. Molasses is also used to cover the mound of silage in the horizontal silo, reducing spoilage by sealing.

Steve calculates that there are 2,000 tons of silage in this pile, which is 225 feet long. Hay is fed in the loafing area... 20 bales (45 pounds each) per day. Pelleted beet pulp is added to the top of each load of corn silage before it's distributed along the feed bunk. Hominy and a 24-percent protein concentrate are also added to silage in the bunk.

Steve does the AI work for the herd, as well as routine animal-health chores such as uterine infusions. He is also talented with a welder, and has built truck bodies, trailers, and comfort stalls... as well as repairing farm equipment.

Stanley and Steve obviously enjoy their work as dairymen, and have done well at it. The bumper sticker on one of the farm trucks sums up their attitude toward agriculture... it says, "I'm proud to be a farmer!" — G.L.C.

ROADSIDE MARKET

"We've had as many as 3,000 people stop at our roadside market on a Sunday," says Harry Black, owner-operator of a 150-acre orchard in Frederick County, Maryland. He and his brother, Lee, have 50 acres of peaches, and some raspberries, cherries, plums, grapes and tomatoes.

Why do consumers prefer a roadside stand over their local supermarket when it usually means several miles of extra travel?

"Here are some of the key reasons they give," says Bob Wearne, Extension horticulturist, USDA:

1. Improved quality because fruit is handled fewer times when sold at the orchard site.

2. Many customers insist tree-ripened fruit has a higher natural flavor.

3. Price is not a big factor... usually about the same as at the supermarket.

4. The drive to the orchard with the family is a form of recreation, not a burden. Some of Mr. Black's customers drive 75 to 90 miles to the orchard. One woman even drives up with her chauffeur!

Considerations

What are some factors the orchard owner should consider in deciding whether he should sell his own fruit?

"It takes more work and management... we are open seven days a week from 9 a.m. to 7 p.m. from the first of June until Christmas, but it has made the difference between operating at a profit, and staying in business... or quitting," sums up Mr. Black. He says he has increased his gross income 40 to 50 percent.

Other advantages Mr. Black has found with his own roadside market include: 1) a more stabilized market because of repeat customers; 2) improved quality of his produce; 3) the satisfaction of having more control over his product; 4) more constant prices, little influenced by the day-

to-day fluctuations of the market, and 5) saves labor costs by letting customers pick their own strawberries and black raspberries.

Mr. Black points out that orchardists will have the added cost of cold storage holding rooms if they sell their own products. At Mr. Black's orchard, all fruit and vegetables are placed in storage as soon as picked to hold their quality. They are moved to the sales area only as needed. No produce is purchased from brokers to resell as "home-grown."

A tip on how to let consumers know when a fruit is available: Hand out a calendar to buyers listing the approximate date fruits you sell will be ripe. You can also use a direct-mail notice if you have customers register. — USDA



Here's an outfit... called the Certain-teed Badger system... to put in field drainage lines in a hurry. Pipe is made of perforated polyethylene.

Equipment is manufactured in Great Britain and is available on a lease basis from the Pipe and Plastics Group of Certain-teed Products Corporation, Valley Forge, Pennsylvania 19481.

Owatonna Haymasters offer two conditioning systems. Where else do you get a choice?



Owatonna, the Company that brought you the first self-propelled windrower, now offers the Haymaster mower-conditioner with features you'd expect only on expensive self-propelled units.

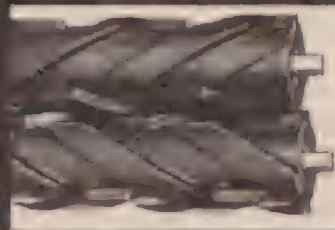
The heart of any mower-conditioner is the crop conditioning system. Owatonna considers varying climatic conditions and individual preferences in making available two separate systems. Some conditions or preferences dictate the use of a rubber roll crimping-crushing type system. Here you'll find the big advantage of Owatonna action angle pattern over competition's continuous groove roll. We call it the bonus working edge (BWE). As shown in the photo, the Haymaster 208 rolls provide over 30% more conditioning action.

The other photo represents the principle of one ribbed steel roll working with a second ribbed steel roll, both driven and synchronized for thorough but gentle crimping action. The Haymaster 200 has a nine foot cutter bar, the 180 is seven foot.

Why pay more money for competitive units that offer few, if any, of these outstanding advantages?

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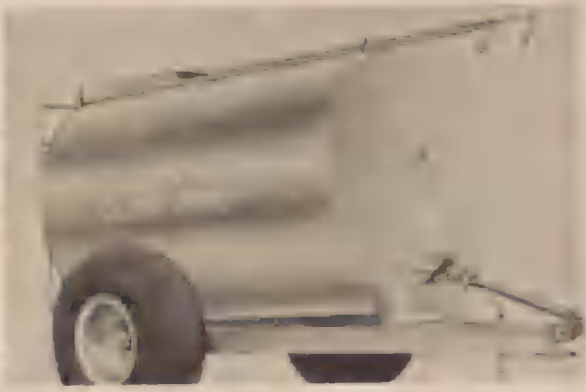
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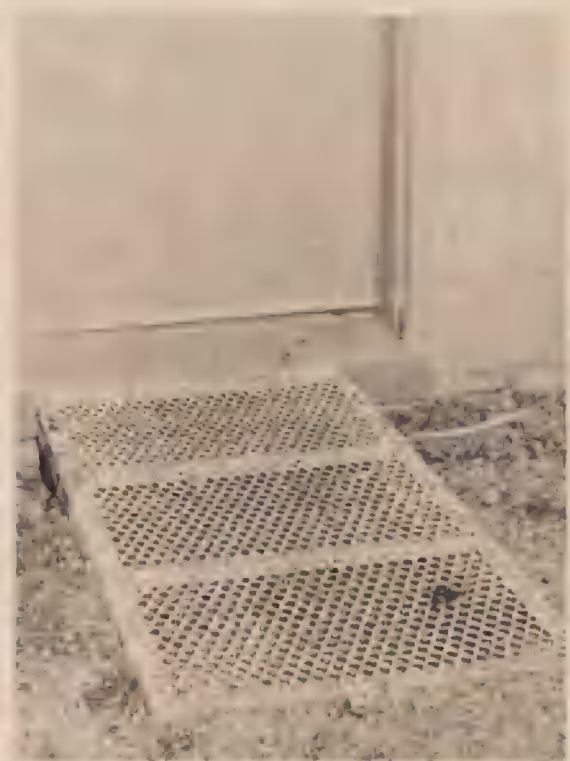
HANDY on the Farm



Hangers - Discarded horseshoes welded in pairs heel to toe make good bridle and halter hangers.



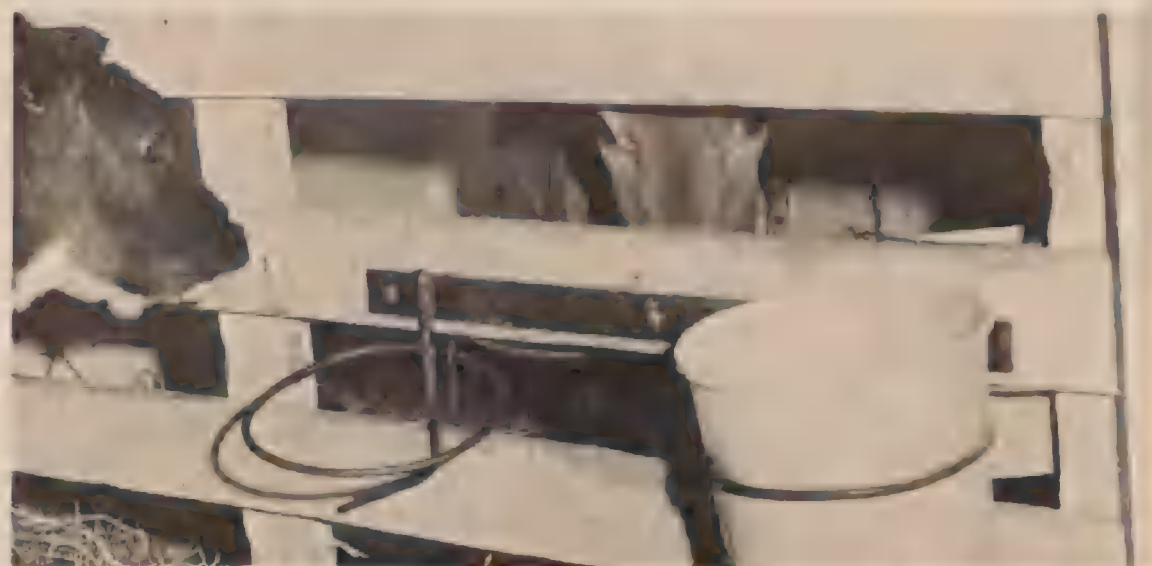
Walkway - A bridge of expanded metal welded over an angle iron frame is handy around buildings as an approach, foot cleaner, and to span a waterway caused by dripping eaves.



Easy to Clean - Concrete bunks along the alley side of the loafing lot and pens simplify feeding by unloading wagon and are easy to clean and keep sanitary at the University of Vermont dairy farm, Burlington. They are mounted on a base of concrete blocks.



Protects Rod - A length of angle iron . . . a piece of windmill tower in this photo . . . protects the grounded lightning rod from cattle rubbing and loosening it.



Bucket Bracket - Two plastic buckets can rest in this welded bracket hung on the side of the calf pen. Iron rods, one bent "L"-shaped and the other formed into an open

circle, are welded for each bucket. The open circle keeps the bucket from binding, and the "L" supports it. "L's" are welded to the flat iron bolted to the rail.

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Even after Treflan knocks off foxtail, pigweed, lambsquarters and 24 other weeds and grasses, there may be a few that get through. That's why you need The Treflan Headstart Program to complete your dry bean weed program.

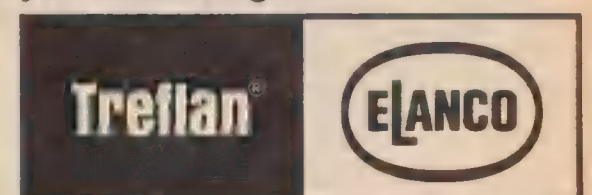
Here's how it works. Broadcast and incorporate Treflan at least 2 weeks before planting your beans. This sets up a season-long weed barrier. And it also prepares a

seedbed for diehards like ragweed and smartweed. That's the time you want them to germinate and grow.

Then, just before planting, work your field again. That completes Treflan incorporation and cuts out the diehards. Their chances of coming back this spring are slim.

This year enroll your dry beans in The Treflan Headstart Program for as little as \$5.20 per acre on medium soil. A small price to pay to put weeds in the back of the class.

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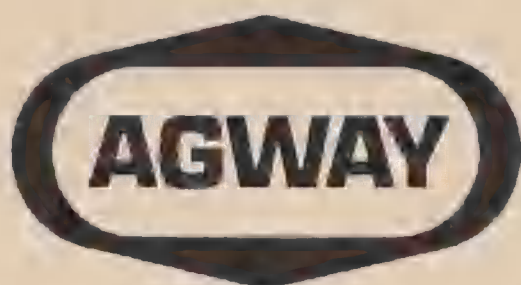


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What's NEW in the FIELD

"NO-NURSE" ROUNDUP

by Bill Pardee

NORTHEASTERN farmers have now made "no-nurse" seedings the rule rather than the exception in seeding alfalfa. We estimate that over half of the alfalfa sown this spring in this region will go in without oats, with herbicides controlling weeds.

Most farmers have good luck with this practice. Fact is, its consistent success is the reason it has become so popular.

Still, problems do crop up. Below, we've pulled together some we've seen as well as those reported to us by Extension agents, industry field men and others who get called in when troubles develop.

In preparing these I've relied heavily on Drs. Bob Seaneey and Bill Duke at Cornell and John Baylor at Penn State, all agronomists, who've helped this practice move through their fine research and extension efforts.

Some Seedings Fail

Most problems stem from poor weed control. Errors in chemical choice, rate of application, spray method and timing can all affect the outcome.

Choice of herbicide is most important. Plan your program for your weed problem. If it's wild mustard, pigweed and lambsquarters that you expect, use DNBP (also known as dinitro or dinoseb) to get these annual broadleaves. This chemical is cheap, easy to apply and effective when weeds are tiny, with one or two true leaves. But don't spray your seeding with DNBP on the morning of a day when the sun's liable to push temperatures into the 70's or 80's. Spray on cool, cloudy mornings . . . or wait 'til late afternoon when the cool of the evening lies ahead.

The herbicide tagged as 2,4-DB (trade names, Butyrac and Butoxone) is another possibility and does well on most annual broadleaves. Butyrac won't hurt grasses. Nor will it get wild radish, so if you've got this pest, choose DNBP.

Eptam (or EPTC) is weaker on broadleaved weeds than the chemicals above, but kills annual grasses which they won't touch. Eptam will pay for itself if you have nutsedge, foxtails, crabgrass, witchgrass or fall panicum. And chances are you've got these aplenty, if you've spread manure on the field. These seeds come through livestock fine, pre-conditioned for rapid germination.

Follow Rules

Eptam normally does a real good job on those annual grasses, but we've had misses ourselves when we violated one of the rules of Eptam application:

1. Wait until the soil surface is dry before spraying. If there's mois-

ture evaporating from surface soil particles, Eptam will combine with this water and pass into the air.

2. Disc immediately after spraying. You've got about 30 minutes maximum or your Eptam will evaporate. Best practice is to pull a disc right behind the sprayer, or rig up a spray from ahead of the disc.

3. Cross-disc at right angles. This can be done later in the day, but don't skip it or you'll get poor mix-in of the chemical and spotty weed control.

4. Use a disc, not a "drag" (spring tooth harrow). It's tempting to choose a drag, but a drag doesn't give the turn-over and mix that a disc will, and your results will often show it. I've talked to a few farmers who have used a drag and gotten good results, but I've talked to more who've had weeds come through.

Balan is an Eptam relative and goes on the same way. Both Pennsylvania and Cornell agronomists recommend Balan along with Eptam. Its only drawback is that Balan is not effective on nutsedge.

We've talked to farmers who have left out herbicides entirely and relied on mowing weeds for control. And we've even met a few who got good stands this way. But, most aren't as lucky and report thin stands or outright failure. If you don't plan to spray, you're better off to sow oats as a companion crop. At least you can harvest the competition!

Lack of lime is another common reason for failure. We lost seedings in oats from low pH, and we can lose them when seeded alone. Apply lime to reach a pH of 6.7 to 7.0, enough to supply top production during the life of your stand.

Trefoil, Tool

"No-nurse" seedings work on birdsfoot trefoil, tool. That's the word we're getting from farmers and researchers who have sown trefoil this way. Now widely accepted as the best way to sow alfalfa, the concept of leaving out the oat companion crop and using an herbicide to control weeds appears just as logical for trefoil, with some minor adjustments.

And trefoil is finding added interest this spring, with plenty of certified Viking seed available for the first time in many years. This could be a good year for you to get a first-rate seeding going in that field where the drainage is too poor for alfalfa.

Birdsfoot trefoil seeded without a nurse crop can perform nearly as dramatically as clear-seeded alfalfa. Despite its reputation as a slow starter, we've harvested one, sometimes two cuts, from Viking birdsfoot trefoil in the seeding year, while establishing near-perfect stands

(Continued on page 22)

American Agriculturist, March, 1972

Guaranteed corn package:

Sutan + atrazine and Dyfonate for weeds and rootworms. Now... get weed and rootworm control that's so good performance is guaranteed!

Corn experts rate Sutan selective herbicide plus atrazine tops for control of grass and broadleaf weeds. Mix them in the soil as you disc before planting and get sure weed control, rain or shine.

Dyfonate soil insecticide controls all corn rootworms with one planter application. Dyfonate works for

sure even if you plant early and rootworm hatch is late. It's safe to use on all grain and silage corn for dairy or other animals.

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Sutan and Dyfonate from





labor situation

by Amos Kirby
New Jersey Editor

THE largest cost in the growing and harvesting of most fruit and vegetable crops is labor. If one believes the prevailing whispers from the legislature, the minimum farm wage in New Jersey will go to \$2.00 per hour. Already the Puerto Rican labor officials are asking a 5.5-percent increase in wages for those who come to the area from that island.

A bargaining advantage in favor of growers for 1972 is that the number of workers from Texas (Mexican-Americans) may be greatly increased. The 400 (approximate) who were brought in last year proved to be better workers than the Puerto Ricans, and the number will probably be increased.

Growers have been informed by State authorities that after their housing, sanitation and water facilities are approved, growers will not be challenged or fined if the occupants damage the property. Farmers will be asked to repair the damaged property, but it will not be a mark against them.

Another important move by the Department of Labor is that each worker coming from Puerto Rico under contract will be given a printed form in Spanish and English stating his responsibilities in maintaining the property and observing sanitary requirements.

PORTABLE TOILETS

The Department of Labor, due to recommendations by farm organizations such as Farm Bureau, Grange and others, has modified the original regulations for field toilets. Instead of requiring toilet facilities every 500 feet, with water for washing hands, the regulation now reads, "Within a five-minute walk of the facilities." The unanswered question: "How far is five minutes?" Toilet facilities are not required when there are fewer than five workers in a field.

RECYCLING

Recycling is a word that will be much in the news in the years ahead, and ecologists are directing much of their efforts toward the disposal of farm wastes.

Two of the major thrusts are being directed toward poultry and dairy farms. There are important farm areas between Washington, D.C. and Boston, Massachusetts, where livestock operators will feel the push.

New Jersey is near the top of the list. Delaware is warning growers to give greater attention to waste disposal.

Applying animal waste to the soil appears to be the easiest way to be a part of the recycling program. While livestock operators are leaders in this type of waste disposal, the ecologists are objecting to the odors, with the fear of water contamination a close second.

Timing the spreading is important from the odor angle. Plowing under the waste as quickly as possible will minimize the charge that these waters are contaminating the soil and the runoff.

NEW MARKET

New Jersey and Pennsylvania corn growers will have a new market for the 1972 crop. Near Trenton, but located at Morrisville, Pennsylvania, the A.E. Staley Co. has opened a new corn processing plant, where many corn products will be produced and packaged for the consumer trade.

In addition to processing corn from the Midwest, the plant offers local growers a market for a substantial portion of their crop. This plant is probably the largest in the East. It brings in 100-car trains twice a week, and they are unloaded within 48 hours.

If one is shifting from other crops to corn and looking for a market, this plant could provide a huge outlet for any surplus from an expanded acreage.

DATING FARM PRODUCTS

The dating of fresh milk is being expanded in New Jersey and has spread to other products. This is part of the truth-in-labeling program that may soon apply to all farm products, including meat.

The big question, and one that is highly controversial: "When is a product unfit for human consumption?" No specific regulations have as yet been devised to apply to such products as milk, fruits, vegetables and poultry, including eggs.

Milk, eggs and poultry will be among the first to be dated. Bread and bakery products will be a close second. This could develop into a series of regulations that will equal or exceed the standards and grades now imposed by state and federal agencies.

ACREAGE CONTROLS

Growers planning to make shifts in crops that may come under federal regulations (such as corn, wheat, soybeans and other grains) should take a close look at the set-aside program.

In this day of surplus crops and resulting low prices, one needs to restrict plantings to avoid future markets that are or can be offering prices below the cost of production.

This applies even in the big vegetable areas of New Jersey.

DRIVER REGULATIONS

Driving trucks on highways is subject to strict regulation. Farm trucks with a gross weight of under 10,000 pounds, and operated less than 150 miles from the farm, are

usually exempt. Those operating certain types of larger trucks, and operated across state lines, are subject to the following requirements.

1. Be at least 21 years of age.
2. Take a road test in driving a truck.
3. Pass a written examination in the federal motor vehicle safety regulations.
4. Pass a medical examination and carry a certificate so indicating.
5. If an employee, must file with his employer information relative to items 1 through 4, along with information on his background and experience. The employer is required to file such information with the Motor Vehicle Bureau.

CORN BLIGHT

The seed corn situation is much improved over 1971. There will be ample supplies of blight-resistant varieties, and prices are likely to be somewhat lower than a year ago.

With blight-resistant varieties in good supply, and the probability that the weather in 1972 might not be favorable for the blight, the outlook for corn yields is much brighter than in the spring of 1971.

NOISE CONTROL

Those exploders used in corn fields to scare away blackbirds may come under regulation. In this "noiseless age," these exploders can result in complaints from those who do not understand their importance.

SOYBEAN GERMINATION

Planting soybeans in 1972? Better take a close look at the germination. Reports from the Extension Service are that the germination is low. This means planting more beans per acre to get a normal stand. Germination tests are available through the New Jersey Department of Agriculture. Consult your agricultural agent for details.

GETTING RICH

The writer was having lunch with a poultryman who operates a 50,000-bird unit. He commented that he was taking a \$2.00 loss on every case of eggs he sold.

A few days later, while attending Farm Week at Trenton, I asked another efficient producer about his egg costs.

His feed costs per dozen eggs were 18 cents. To this add a 12-cent depreciation on the bird that laid the eggs. Then add 5 cents for labor, taxes and upkeep. When these 35-cent eggs go to market, he receives 23 cents on mediums.

Checking a bit further, those 35-cent eggs have been selling in the market for 50 cents. Delving still deeper into the egg deal, one finds that it costs 40 to 50 percent of what the producer receives to get the egg from the henhouse to the consumer. In the Philadelphia area, one supermarket was recently offering a dozen eggs in place of trading stamps for a bonus on each \$10 of purchases!

While pondering these figures, I remembered an item in the 1972 Farmers' Almanac which tells of the farmer who never thought he would be as well off as the Penn-Central!



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SPRINGVILLE	Lamb & Webster
SYRACUSE	Reliable Farm Suply
THERESA	Pete Giltz Implm't
WALTON	Walton Farm Suply
WATERTOWN	Taylor Implm't
WHITNEY POINT	Penningroth Farm Suply
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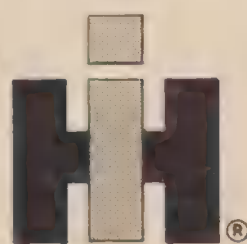
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International Harvester Company



for future production.

The key is to put together a package that includes good weed control, lime, high fertility, first-rate varieties and good seeding practices, followed by top production management. Many of the practices transfer directly over from alfalfa, and you're probably already familiar with them. However, trefoil's a bit different as a crop and some practices differ.

For one thing, we normally prefer to sow trefoil with grass, with timothy first choice. A good thick trefoil stand, the type we're seeking, can be so fine-stemmed that it lodges badly if grown alone. Timothy plants help hold the trefoil up. And timothy

will fill in areas where trefoil is thin or kills out.

This limits our herbicide choice, ruling out grass killers like Eptam and Balan. Both would kill your timothy.

DNBP, widely used in clear-seeding alfalfa, can burn back trefoil. It's cheap and effective on broad-leaved weeds, but it can hurt trefoil if temperatures get into the 70's and 80's during the day you spray.

Best herbicide for use on trefoil is 2,4-DB; this is a good broadleaved weed killer that won't harm trefoil or timothy. Spray on when weeds are tiny and less than 2 inches tall. Older weeds are tougher to kill. To get weeds in this stage, you'll need to keep a close eye on your field.

Wild radish is not taken out by

2,4-DB, so if this is your problem, use DNBP carefully. Feeding restrictions on 2,4-DB compounds prohibit feeding of sprayed material for 30 days, but that won't bother you in new seedings, since it'll take 6 to 8 weeks to have enough to cut.

Liming is important in establishing trefoil as with any legume. Trefoil doesn't need quite as high a pH as alfalfa . . . however, you should still lime to 6.5 to 7.0. Normally, you're planting trefoil stands for long life and your pH will fall unless you lime well at the start.

Fertilize Well

Fertilize well, using plenty of phosphorus and potassium. New York recommendations call for 60-80 pounds of phosphate and 30-60

pounds of potash at planting, to be followed by approximately the same amount of annual topdressings. However, specific rates vary depending on soil type and soil test reactions. Penn State agronomists recommend a plow-down of 0-45-135, with 20-60-20 at planting. They suggest annual topdressing with 0-40-120. Check these with your local Extension agents for recommendations tailored to your particular fields.

Choose high-yielding varieties. Viking, Mansfield and Empire are normally first choice, depending on how you plan to handle your crop. Viking-type varieties should be first choice for hay and aftermath grazing, where you're planning 3-5 years of production. Empire serves best on very long-lived stands. Empire won't yield as well as Viking, but will persist longer under moderate management. Mansfield is similar to Viking in growth and production.

"European" trefoil sources can be erratic and vary in quality from year to year and lot to lot. If you're spending money for all the other inputs in sowing trefoil, a few extra dollars spent for certified Viking is cheap insurance. Poor seed won't produce a crop no matter how good the lime, fertilizer and weed control. So be sure the variety you plant has the yield capacity to pay back your money.

Planting Time

Best planting time for birdsfoot trefoil is early spring, as soon as you can get the land prepared. Obviously this will vary, depending on your soil type, since some fields may be too wet to get on early. If soils stay wet late, and you don't get your seeding done until late May, you won't harvest much trefoil the seeding year. However, you should still mow off the growth in late July or August to control any weeds creeping through your weed-control methods.

Seeding rates on trefoil sown without a nurse crop haven't had recent study, but most recommendations suggest 6-8 pounds of trefoil and 2 pounds of timothy per acre. Keep the timothy rate light. We want to hold up the trefoil, but not crowd it out!

Don't over-harvest or over-graze your seeding the first year. Once is normally about all that is worthwhile, though we've taken two cuts in extra good seasons. Don't harvest after Labor Day, so that the trefoil plants can get firmly established before winter.

Summer Seedings

Summer seedings are possible with trefoil, but success is erratic. You might try this on really wet fields that don't get dry enough to prepare a seed-bed until midsummer. Here you might try a trefoil seeding with timothy in early August. Don't delay past mid-month or the trefoil won't get established before winter and will kill out.

"No-nurse" seedings, using the practices above, look good. For years, slow establishment has been our key problem with trefoil and this looks like a way we can lick it. So if you've land too poorly drained for alfalfa, this could be a year to give trefoil a try.

Viking trefoil has long made a

(Continued on page 23)

more
field time,
less
down
time



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top corn growers

Each year, DeKalb AgResearch, Inc., sponsors a contest for top grain and silage yields. In Western New York, the top contestant came within .7 bushel of a 200-bushel yield in 1971!

The top ten corn growers in the contest, and their officially-checked yields (some entered more than one field of corn) of #2 dry shelled corn are as follows: Dennis McNamara, Stanley, 199.3 and 180 bushels per

acre; Ted and Jim Minns, Geneva, 174.4 and 170.1; Gillam Bros., Clifton Springs, 174; Ralph Bowerman, Macedon, 166.1 and 163.8; Kime Farms, Geneva, 161.4; Robert Smith, Stanley, 161; Gordon Minns, Canandaigua, 157.7; Ronald Murtgam, Barker, 151; Noblehurst Farms, Linwood, 149.4; Lee Bauer, Lyons, 148.6.

Statistics

Average plant population per acre of the 13 fields entered by the top ten was 24,254... ranging from 21,400 up to 28,300. Row widths varied from 38 to 30 inches, with 7 fields at 30 inches, 5 at 32 inches, and 1 having 38 inches between the rows. Atrazine was used as an

herbicide on all fields but one... sometimes alone, sometimes in combination with Sutan, 2,4-D, or oil. Five fields were cultivated once; eight had no cultivation.

Other growers in the contest, below the top ten, but with yields well above 100 bushels per acre, included: Jacob Haury, Stanley; Ellsworth Norton & Sons, Elba; Jensen & Tichener, Stanley; Ken Hutchinson & Son, Stanley; Fred and Melvin Olmstead, Holcomb; Eugene Gillis, Victor; William Rockefeller, Phelps; Harry Klotzbach, Basom; McCollum Farms, Gasport; and Reuel Gruendike, Churchville. Among these, plant population per acre averaged 23,120. Four growers planted in rows 30

inches apart, two in 32, four used 36-inch row width.

Best silage yields (all corrected to 30-percent dry matter) were posted by many of the same farmers already listed... addresses appear only when not previously mentioned: Ken Hutchinson & Son, 28.9 tons per acre; Ellsworth Norton & Sons, 27; Ted and Jim Minns, 26.8; Noblehurst Farms, 25; Lee Bauer, 24.4; Edward Sharp, Byron, 23.7; Carl Yunker, Elba, 23.7; Willard Lipe, Manlius, 22.4; Gillam Bros., 20.9; and Paul Kern, Batavia, 20.7.

Average plant population here was 26,210 per acre, and row widths included 28 inches (1 field), 30 inches (3 fields), 32 inches (3 fields), and 36 inches (3 fields).



TO THE DISSENTERS

Don't hide behind the church
If you wish to help the foe;
For if they ever win,
The church itself will go!

The Yankee flag was waving
In the days of slavery!
Carried by some soldier boys
Who died to set them free!

They fought in Saipan
And down in Corregidor;
Now the Bible can be found
Where it never was before.

They bottled to help the British,
The Negro, and the Jew!
And they bought a little freedom
For me and for you.

So do not hide behind the church
To help the enemy;
For when the Bible burning's over
You no longer will be free!

Harry Huntoon, Gifford, Pa.

Pardee

(Continued from page 22)

good companion for alfalfa on fields with moderate drainage or with spotty drainage patterns. Iroquois alfalfa fits best on this mixture, growing on the dry spots in the field with trefoil in the wetter areas. Climax timothy helps fill in all over and holds the trefoil up. All together, these three develop a high-producing stand over the whole field.

As with alfalfa and trefoil, "clear" seeding works fine for this mixture. Best chemical is 2,4-DB (Butyrac or Butoxone), since Eptam kills timothy and DNBP (dinitro) is tough on trefoil.

American Agriculturist, March, 1972

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Appearance: Dark green, attractive.
Maturity: Early.
Use: High T.D.N. silage.

XL-22b

Populations: 22,000 or higher for silage.
Height: Plant—medium; ear—medium.
Stalk quality: Excellent.
Maturity: Little earlier than XL-316.
Ear: Large, excellent kernel quality.
Use: Good tonnage and high T.D.N.

XL-316

Populations: 22,000 or higher for silage.
Height: Plant—tall; ear—medium.
Standability: Excellent.
Maturity: Medium.
Adaptation: Wide range of soils and seasons.
Use: Big tonnages of quality silage.

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FRUIT



Rent-a-tree? — A German orchardist, Gerhard Hopp of Balkhausen, has solved a labor problem and added a new twist to the U-pick approach. He leases individual apple trees by the year to city dwellers so they can bring the whole family out to his farm and sit under their very own orchard property whenever they like. They can pick the fruit or not, just as they please.

Crazy idea? Maybe so, but it sure sells apples! One weekend ad in the local paper brought contracts for more than 1,200 trees at 25 Deutschmarks (about \$7) per tree. Now many other farmers and orchard owners in Hopp's district are following the same pattern.

Shades of Isaac Newton . . . Hopp claims he got the idea when an apple fell on his head!

Take-Off — New plant growth regulator called ethephon is seen as a promising new aid in mechanical fruit harvest. Since the chemical makes the fruit detach easier from the tree, less time is required to shake the fruit off the tree with a machine. The result is less fruit damage and greater yield. Ethephon also produces more uniform color throughout the tree.

Under test at Cornell University for the past four years, ethephon is expected to be cleared this year for use on a limited basis for cherries and apples for processing.

Harvester — A small-bush blueberry harvester, designed also to harvest the large-bush varieties in early stages of growth, has been developed by Harvey Harvesters. The new model complements Harvey's standard high-bush harvester introduced some time ago.

A four-page bulletin describing the new machine, including photos depicting the method of harvesting and special features . . . as well as a complete list of specifications . . . is available by writing: Harvey Harvesters, Inc., Spring Lake, Michigan 49456.

Rare Fruit — Many rare and unusual apple and other fruit varieties . . . especially older American and foreign varieties . . . on size-controlling, early-bearing rootstocks, are available from Southmeadow Fruit Gardens, 2363 Tilbury Place, Birmingham, Michigan 48009. Availability is the result of years of search and research, selection and collection by Robert Nitschke, who began testing fruit varieties in 1950.

A free price list of varieties offered will be mailed on request. Or send \$1.00 for a catalog containing a complete description and history of each variety.

More than 100 old apple varieties are also being grown in the Worcester County Horticultural Society's preservation orchard at North Grafton, Massachusetts. Plans are to relocate the orchard to Old Sturbridge Village, and enlarge it to about 125

old varieties . . . if the desired varieties can be found.

Of special interest are varieties which originated in New England and nearby states . . . Danvers Sweet, Fall Orange, Haskell, Minster, Jacobs Sweet, Murphy, and Moores Sweet.

Whether you're looking for old apple varieties, or have some available, contact the Society at 30 Elm Street, Worcester, Massachusetts 01608.

Organizations — Amateurs interested in information about fruit varieties may wish to join the American Pomological Society and receive the "Fruit Varieties and Horticultural Digest." Send \$5.00 membership fee to James B. Mowry, Illinois Horticultural Experiment Station, Carbondale, Illinois 62903.

Also of interest is the newly-formed North American Fruit Explorers, a cooperative non-profit association of gardening enthusiasts in the United States and Canada. They've commenced publication of a quarterly entitled "North American Pomona." Membership is \$2.00. Send to Robert Kurle, 87th and Madison, Hinsdale, Illinois 60521.

Then there's the New York State Fruit Testing Association, headquartered in Geneva, New York 14456, but open to out-of-NYS-residents. Write to the Association for membership information and a price list of tested nursery stock.

Spray Tests — Research indicates that orchardists can reduce the number of spray treatments and quantity of chemicals used, and still get satisfactory pest control, by going after only the insects known to be in the orchard, rather than relying on a complete preventive program.

Satisfactory results were reported when the "spray-when-needed" principle was evaluated in nine New York orchards, located in major fruit-growing areas of the State, during 1971. All test orchards received no more than four post-bloom insecticide sprays. One received only three such treatments.

Sex attractant traps were used as monitoring devices to determine which insects were present in the orchards. For the apple maggot . . . one of the insects which don't get the message in this type of communication . . . another experimental trapping device had to be used.

Researchers also believe it's possible that once the pest population in an orchard is reduced, presumably by chemical means, the sex attractant trap principle may be applied as a control agent to hold future populations at tolerable levels.

Hybrid Apples — Six hybrid seedling apple rootstocks, considered extremely hardy and ranked high in winter survival, have been developed by scientists at the Ottawa Research Station in Canada. The rootstocks are also tolerant of latent viruses, and trees grafted on them appear to be nearly normal in size. A description of the new hybrids, including the various crosses used in their development, is contained in "Hybrid Seedling Rootstocks for Apples," Pub. #1431, available from the Information Division, Department of Agriculture, Ottawa, Canada.

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* Max. observed PTO hp, manufacturer's estimate

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Food For The Spirit



by Robert L. Clingan

NOW ABIDETH HOPE

When the Apostle Paul concluded his moving chapter on love, he said, "And now abideth faith, hope, and love, and the greatest of these is love." We recognize the power and necessity of faith. We honor and give a position of first priority to love. Yet we say little about "hope" as one of the three most significant virtues, and a part of the treasure of every real Christian.

Christians cannot be stampeded by the black headlines of the morning newspaper... because they are a people of hope. They cannot be frightened by hand-wringing people with tremulous voices... because they have hope. Hope is a part of their arsenal with which they engage the evil and depressing forces of the world, and a part of their source of comfort.

Troubled

Paul, who gave hope such a high rating, spoke and wrote of the "hope you have in Christ." He had every reason to despair. He had been forced to flee for his life, and ended up waiting for a trial in Rome, as a result of which we presume he was executed. He had known shipwreck, floggings with a lead-tipped lash, and desertion by people he had thought were his friends. Yet he could write in the midst of all this about "the hope you have in Christ."

He knew evil first hand, even in his own inner struggles. Yet he also knew Jesus, and the God that Jesus revealed. He knew that human history is ultimately in the hands of Him who had created this world and placed men in it. Hence he could argue from personal experience that the powers that are for us far outweigh the powers against us.

Further, he knew this source of power would enable him to pass through any experience he had to face. At times he may have been like the woman who said she knew the Lord would not allow her to have any burden too great for her to bear, but she wished the Lord would not have such a high opinion of her! Near the end, Paul wrote, "I can do all things through Christ who strengtheneth me."

My grandmother knew great adversity. Her husband was killed in an attempted holdup, leaving her with five children to raise by herself. At one time she said, "I wish people would not feel so sorry for me. I have faith. Rather, they ought to feel sorry for those who have trouble and no faith." Her faith enabled her to have the hope she needed to carry out what life now required of her.

Hope, faith, love... they all belong together. May our faith and love give us the hope we need. Never did the world and our American society need hope more than they do today!

A GRAIN OF CORN



A grain of corn is but a simple thing, and yet how simple is a grain of corn? Through deep affinity of soil and spring and grain, a hundred grains and more are born.

A hundred grains and more are grown from one, a hundred lives compressed within a grain await the urge of friendly soil and sun, the call to wake, the cooling touch of rain.

So small a spark of life, so strangely still untouched by elements at grain command, it seems a helpless thing devoid of will until it wakes to gloriously expand. A simple grain of corn is more complex than any simple human mind suspects.

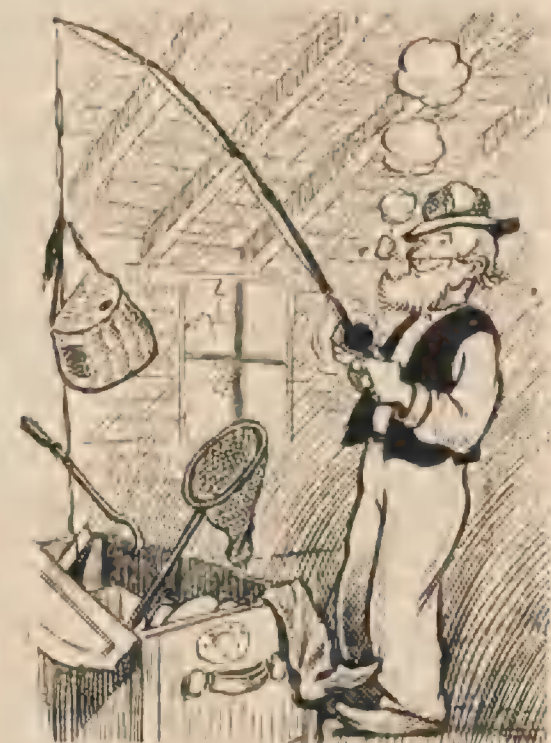
by Florence Jansson

The Song of the Lazy Farmer

Already my poor neighbor's scared that spring will find him unprepared; though it's now only March, by gee, he's busier than any bee—repairing, greasing, tightening, so he'll be sure that ev'rything is all shipshape and set to run as soon as winter's fin'ly done. He's bought 'most ev'rything he'll need, including sev'ral kinds of seed; and all the plant food his soil lacks is in the shed, piled up in sacks. That guy has made a map to show what ev'ry single field should grow; it's possible he may have drawn a schedule for each day.

Don't get me wrong, I think it's great to plan things early, 'stead of late; I will agree it's not too soon to think of April, May and June, but you can bet my plans are far removed from what my neighbor's are. I do not get too much alarmed about how this place will be farmed; Mirandy and the hired man can handle that phase of the plan, so

I've got time to concentrate upon the things that really rate, like mapping likely fishing holes and checking all my lines and poles, or making sure the hammock's sound so it won't dump me on the ground.



American Agriculturist, March, 1972

News and Views from NEW YORK AND PENNSYLVANIA



Keystone Conference — A Swine Management Conference . . . designed to cover the basics of swine management and aimed primarily at those who are relatively new to or inexperienced in swine production . . . will be held at Penn State on March 28, 29, and 30.

Full information can be obtained by writing to: Agricultural Conference Coordinator, 410 J. O. Keller Conference Center, Pennsylvania State University, University Park, Pennsylvania 16802.

FAIRGROUNDS '71

With New York State fighting the battle of the budget so desperately, residents should be aware of one area where taxpayers are getting good value for their money. This is the State Fairgrounds.

Many people assume that the grounds are used for the annual State Fair, then lie dormant the rest of the year. Not so! Fair Director Bernard W. Potter reports that the buildings and facilities are used 52 weeks of the year.

Last year, for example, there was a continuous program of events ranging all the way from statewide church meetings to a N.Y. Army National Guard bivouac in the parking lot!

More than a million people enjoyed activities at the State Fairgrounds in 1971.

POWER POINTERS

Planning recommendations for wiring all types of farm structures, including field crop storage and farm shop and machinery sheds, are available to readers in the "Agricultural Wiring Handbook."

Formerly entitled "Farmstead Wiring Handbook," this 80-page publication has undergone extensive rewriting and editing to include recent information on recommendations which now conform to changes in the National Electrical Code.

Copies of the Agricultural Wiring Handbook (EEI Pub. No. 71-27) are available from the Agricultural Marketing Group, Edison Electric Institute, 90 Park Avenue, New York, New York 10016. Price is \$2.50 per copy.

BEETLE BATTLE

The alfalfa snout beetle widened its territory in New York State in 1970, when a new infestation was found in Wayne County. Entomologists had formerly managed to contain the beetle to small areas of Oswego, Jefferson and Cayuga Counties.

The USDA Agricultural Research Service and a team of entomologists at Cornell University are now stepping up their efforts to find effective new methods . . . both chemical and biological . . . to control the dangerous pest.

It won't be easy. Each member of the all-female species is capable

of laying 800-900 eggs which do not have to be fertilized to develop. One busy beetle can start an entire colony!

They're amazingly hardy, and can be submerged in water for five days and still live. Although wingless, they can still manage to migrate quite a distance. Researchers speculate that the beetle free-loaded into Wayne County by hiding in a beehive which had been in Oswego County to pollinate an orchard.

Anna and Mary Kopta of R.D. 1, Ripley, New York, report the bull calf pictured was born on their farm at a birth weight of 152 pounds. Cow and calf did well!

Can anyone beat this weight for a newborn calf?



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Storage tank at a modern evaporator operation holds the day's supply of sap.

the sylvan nectar

by Leigh Cree White

THOSE who revel in the matchless flavor of pure maple syrup need to be reminded that they're a five percent minority. The other ninety-five percent of the people who inhabit this world have never tasted maple syrup or sugar. Maple production is limited to northeast and central United States and Canada.

It is a delight to be preserved . . . as the enthusiastic attendance at various Maple Festival celebrations attests.

But what does its future hold? As with some other farming enterprises, there'll continue to be a decline in the number of maple producers. Production, though, is holding its own on a nationwide basis, according to Fred E. Winch, Cornell University Extension forestry specialist. There are major innovations responsible for this.

These innovations include plastic pipelines to carry the sap from trees to storage tanks, vacuum pumps to increase yields, and central evaporators to cut down on equipment costs and processing problems.

Sweet Spaghetti

Plastic pipelines, looking like weird montages of spaghetti, cut production costs by as much as 40 percent, according to Fred. "Ninety percent of New York State maple producers use some plastic tubing." In Schoharie County, on the fringes of the Catskill Mountains, about 35 percent use it exclusively.

The pipeline is one reason maple production remains fairly constant, though the number of producers declines. With plastic pipelines, the producer can reach sugar maples perched on hillsides. He can take care of more trees on the level. He finds the lines easy to handle and to clean . . . a true boon.

It's a boon that Gerrit Boon would have liked. Gerrit tried to commercialize maple production away back in 1794. He lost the equivalent of \$15,000 trying, because the wooden troughs he designed to gather the sap couldn't take the onslaught of

the elements. Still, his idea was the forerunner of today's pipeline and he was immortalized in a town's name . . . Boonville . . . on the western edge of the Adirondacks.

Collecting sap accounts for one-third or more of the cost of syrup production. Sap must be collected often . . . sometimes three or more times a day during good runs by producers who use metal buckets or plastic bags. It can't remain in buckets more than a few hours when temperature is above 40 degrees F., or it will ferment and spoil.

Sap is collected in large quantity, and the producer must prevent fermentation in the storage tanks. Here, ultraviolet lamps or sunlight keeps the sap in good condition until it can be processed later in the day.

Vacuum Boost

The second big boost for maple producers is the vacuum pump. It's been used in Cornell University's experimental sugar bushes about seven years. An innovative 10 percent of the producers in the State are now trying it.

Pioneered in Vermont, the vacuum systems yield up to 100 percent more sap. One type . . . referred to as the induced-vacuum, or closed system of tubing . . . uses both the weight of the sap and gravity to provide the pull. The second system with a small pressure pump, motor

(Continued on next page)

MAPLE FESTIVALS

Join in the fun . . . and see just how maple syrup is made . . . by going to one or more of the annual maple festivals being held throughout the Northeast. Here are some dates:

March 24-26: Pennsylvania Maple Festival, Meyersdale, Somerset County, Pennsylvania

April 7-9: Franklin County Maple Festival, St. Albans, Vermont

April 8-9: Central New York Maple Festival, Marathon, New York

April 29: Schoharie County Maple Festival, Jefferson, New York

May 6-7: Potter-Tioga Maple Festival, Coudersport, Pennsylvania

and dumping unit works well where there's not much slope to the land. The vacuum system helps maintain a more steady flow of maple sap through the tubings, breaks air locks, overcomes friction and clears sap from the lines before it freezes.

Centralized

The third change in maple production is the central evaporator . . . where sap from several producers is brought for boiling in efficient equipment. Turning sap into syrup is a long, involved process. The trickiest part of the boiling process is to produce a high-quality, light-colored syrup. This calls for a constant level of heat, and constant attention to the fire if wood is used for fuel, as it is in many small operations.

The process is done in two parts . . . initial evaporation, and then a finishing pan. How long the boiling takes depends on the depth of sap, fuel source and intensity, and amount of sugar and other solids in the sap, measured by "degrees Brix." The average sugar content of sap is 2 to 3 degrees Brix; syrup boasts a sugar content of 66 degrees Brix.

Some individual sugar maple trees rate higher in sugar content than others, and these are carefully nurtured by producers. A tree in Vermont, rating 11 degrees Brix, is prized by all. Its offspring are guarded jealously.

Only sugar maples produce sweet enough sap for maple syrup making. Fifteen gallons of a 1-degree Brix sap yields only 1/5 gallon of syrup, while 15 gallons of a 10-degree Brix sap yield 1-3/4 gallons of syrup.

The finishing pan receives the almost-done syrup and regulates the last evaporation of water. Five to 10 gallons of syrup are finished at a time, heated to 7 degrees F. above the exact boiling point of water . . . which varies according to the geographical elevation involved. Then it's filtered into cans and bottles and heat-sealed, ready for the consumer.

A Path

Consumers have for many years beaten a path to the door of Schoharie County (N.Y.) maple producer Hank Dayton. His wife, Martha, presides over the sugar-making end of their business. She whips up taste treats such as maple cream, maple-nut candy and molded maple sugar.

Visitors to the sugar house on weekends are offered sugar on snow



Ever eat hard-cooked eggs boiled in maple syrup? 4-H'ers sell them at the Maple Festival in Schoharie County.

which is eaten by winding the gooey boiled syrup on wooden sticks. The sugar kitchen, painted spotless white, is filled with spring sunshine and the good smells of maple sugar and syrup.

The Dayton's farm has been in Martha Taylor Dayton's family more than 160 years. Their records of maple sugar and syrup production show the history of maple's evolution from a sugar necessity to a gourmet desire. In 1852, the maple crop on this farm was measured in pounds of sugar . . . 202 pounds total. Now it's measured in gallons of syrup, with about 800 gallons produced each year.

Hank Dayton's favorite motto tacked over the entrance to the sap house continues the farm's ideal, "Quality is remembered long after price is forgotten."

Weather Troubles

There are many pitfalls along the way from maple sap to maple syrup, a major one being the weather.

Ideal conditions for good runs of sap in the spring call for one day of a warming trend, the second day warm and the third day a sharp drop in temperature. March weather often provides these conditions. The best sap-running weather needs days with temperatures up to 40 degrees F., and nights down to 26 degrees.

The amount of maple syrup available in New York and New England has barely supplied the demand the last few years, and weather can take a good share of the blame, says Fred Winch.

The spring temperatures in 1967-69 did not fluctuate enough. Many small producers went out of business because the sap didn't flow in large volume. Those who stuck it out saw a good sap run in 1970, but they also saw so much snow that a lot of the run was lost because they couldn't get into the sugar bush to tap.

New York State went from a surplus maple syrup area to a decidedly depleted situation. More than one hundred thousand gallons of syrup were imported into the state four years from Canada to try to meet the demand.

Flowed

Then, in 1971, the sap flowed . . . finally. Temperatures remained obstinately cold way into March. Hank Dayton's operation, "Taylor Farm Sugar Camp," usually has processed 300 gallons of syrup by March 24, but reported only 54 gallons by that time in 1971. Down over the hills, though, a valley producer in Delaware County was making his 200th gallon. So it all depends . . . temperature, altitude, direction of slope, snow cover, general weather, all play a part.

An experimental process, reverse osmosis, may some day be available to the industry. Operating like the desalinization process, reverse osmosis concentrates the sap by forcing it at high pressure through a semi-permeable membrane.

Just how much maple syrup will be available to future generations is anybody's guess. If some of Hank and Martha Dayton's enthusiasm can be passed on to younger farmers, the battle is won. The sugar bushes are there, just waiting for action.

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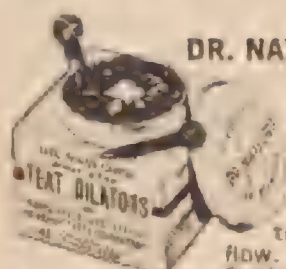
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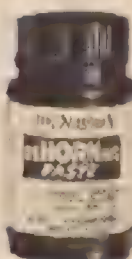
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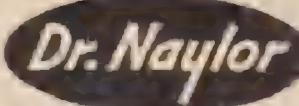
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VETERINARY PRODUCTS

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organically-grown produce

There's a new specialized trade that can affect some farm stand operators. Here Cooperative Extension Agent Walter Androsko, Westchester County, New York summarizes remarks he made on the subject to growers at the Kingston meeting of the New York State Horticultural Society.

THERE have always been groups of people interested in organic gardening and organically-grown produce. With today's emphasis on ecology, the concern about the thousands of chemicals used in our society, and the new life style of the young, there is an increasing market for organic foods.

An examination of many home magazines will show glowing accounts and exotic recipes for these foods. Magazines and books have proliferated on the subject of natural foods, organic foods, the natural life, and so on. Natural food stores are springing up in many communities.

Growers of fruits and vegetables have the opportunity to supply some of the demands of this new specialized market. It now becomes a management decision whether this market, with its possible premium prices, should be developed by you personally.

Some Changes

It will mean some changes in your farming practices. All of you have used organic matter and organic fertilizers in the production of fruits and vegetables. It may be that the organic fertilizers now used over the entire farm, and then supplemented with commercial fertilizer, will need to be concentrated on one portion of the farm as the only nutrients used. A change in pest control may be necessary on some crops.

The terms "organic foods" and "organically-grown foods" mean different things to different people. It may be well to find out what these terms mean to your potential customers before you start a program of catering to this specific group.

Traditionally, organic gardening and organic foods has meant the production of food without the use of commercial fertilizers. It may also mean the production of these foods without the use of pesticides of any kind.

In Harmony

On the other hand, some organic gardeners feel that the use of plant-type pesticides is in harmony with nature. These could be products such as Rotenone, Pyrethrum, tobacco products, Ryania, etc. There are other variations, but the point I make is that organic gardening and organic food do not mean the same things to all people.

Roadside stand operators have

always been alert to the demands of their customers. If a certain portion of your customers are demanding organically-grown foods and are willing to pay the price for them, it certainly behooves you to give consideration to these demands. It may also be that some of the natural food stores in your area would also be an outlet for products of this type.

Pitfalls

There are however, pitfalls that should be taken into account by anyone contemplating the production of organic foods. One already mentioned is that your production methods, no matter how well-intentioned, may not conform to the standard of organic food some customers desire.

You would also need to adjust your own standards of perfection in production and harvesting. The organic trade may tolerate imperfections that you most likely would not consider selling in your normal merchandising program.

You will also need to review your pricing policy carefully. The changes in production and the yield at harvest will be such that a different pricing policy will be necessary. This is a specialized trade, and higher prices will be expected.

Finally, it should be remembered that this is a new project for you. There is at least some fad element involved among the buyers. It may be that once the product is on your merchandising counter, its appeal in comparison to your own product will be less and the demand lower than expected.

On the other hand, we could hope that the demands would exceed expectations. In either event, you should be cautious and alert in following.

(Continued on page 31)

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VEGETABLES



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Copies may be secured from: American Tomato Yearbook, P. O. Box 279, Scotch Plains, New Jersey 07076. The price is \$2.50 (\$3.00 outside the U.S.A.). A complete set of all issues still available (the 1953, 1955 through 1971 editions) is offered for \$34.50.

NEW VEGETABLES

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— **Sweet Sue** white and gold sweet

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— **Silver Queen** sweet corn is not a new introduction, but for the first time seed supplies promise to approach demand. It's a late-season white corn recommended for winding up the season. Gardeners have reported with high praise of this one.

Produce

(Continued from page 30)

lowing this new project. It will be an interesting departure for you.

Different

You will meet an entirely new clientele. You will find these customers for organically-grown food far different from your regular customers. Many of them look upon food purchases as an expression of their philosophy of living. They will question you and your practices; some will be overly zealous, other eager to learn. All will be interesting if you yourself are interested in their points of view.

You must be alert to their wishes, to your cost of production, and to the final figure that determines profit and loss. All are important factors in your decision whether to keep going with this new enterprise, expand it, or discontinue it. As with any new enterprise, some patience will be necessary; allow time for the new products to catch on.

Depending upon your own interests and enthusiasms, the growing of organic foods can present a challenge that will open up an entirely new farming experience for you.



Bush Ebony squash are not of the true bush type, but vines spread only 4-6 feet.



Greenhouse owner Julius Kadas, Brooklyn Heights, Ohio, measures tomato plants which he reports reached marketable heights in only seven weeks (as compared to conventionally-grown period of 10-11 weeks). Spur to growth comes from Metalarc/C lamps suspended over the plants; they automatically turn on whenever available light falls below 700 foot-candles between 6:30 a.m. and 6:30 p.m.

American Agriculturist, March, 1972

How to make good cows produce better



Aucreek Ivanhoe Lucille, owned by William Kux, Port Penn, Del.

305-DAY RECORD

Lac. #	Age at Start	Milk (lbs.)	% Fat	Fat (lbs.)
1	26 mos.	13,130	4.1	536
2	43 mos.	14,335	4.2	601
3	55 mos.	16,883	4.2	711
4	67 mos.	18,865	4.0	753
5	81 mos.	21,686	4.3	934

Lucille was one of 180 Holsteins participating in a field trial conducted by Du Pont in 1969-1970. Lucille and the other 179 cows were selected at random to give a representative mix of age and milking potential. Lucille received HYDAN in her fifth lactation.

From calving time, or just before, half the cows began receiving about one ounce of HYDAN feed supplement in the daily ration. The other half did not. Apart from HYDAN, feeding was the same for all cows. Herdmates were assigned to treatment or control rations according to alternate date of calving.

Compared to the control group, cows that were fed HYDAN produced an average of 845 pounds more milk and 46 pounds more fat in 305 days. That's equivalent to 1,019 pounds of 4% FCM.

The response was greatest among the better cows... cows like Lucille.

HYDAN is methionine hydroxy analogue, a form of the amino acid methionine that is especially suited to the complex digestive system of ruminants. HYDAN in the feed puts more methionine in the cow, and that means more milk in the bucket. As little as 1 ounce of HYDAN per cow per day can greatly increase production over a full lactation.

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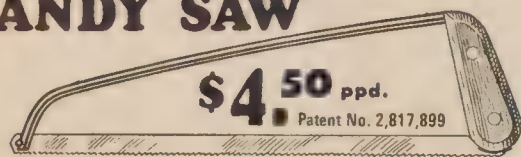
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Dollar Guide



COST PER POUND of plant nutrient remains the best way to compare fertilizers. Liquid fertilizer weighs about 11 pounds per gallon, 182 gallons per ton. Thus, a 10-20-10 liquid fertilizer selling for 40 cents per gallon is equivalent to \$72.80 per ton . . . competitive with dry fertilizers. But at \$2 per gallon, you're paying \$364 per ton, and getting the same 800 pounds of plant nutrients!

MILK ADVERTISING AND PROMOTION will be supported by a mandatory deduction of 5 cents per cwt. on all milk delivered on and after April 1 to the Middle Atlantic federal milk order. Quarterly refunds will be made to any producer not wishing to participate.

This is the first such program to be added to any federal milk order, as authorized by Congress in 1971 legislation.

MILK CO-OPS draw fire if they become too successful on behalf of their members. Ralph Nader and his Public Citizens Inc. are suing the USDA to roll back federal milk-support price increases announced in March of 1971 . . . charging political influence by several dairy co-ops. And Uncle Sam has charged Associated Milk Producers Inc. with conspiracy in restraint of trade.

DAIRY PRICE SUPPORTS may be nudged up a little before November . . . part of a package of expected government moves to sweeten farm programs in an election year.

Wheat growers are being offered payment rate of 94 cents per bushel times the farm's established yield times the acreage voluntarily set aside. Feed grain signup extended to March 10.

TEAT DIPS, to be effective for mastitis prevention, should contain a minimum of 4 percent (40,000 ppm) chlorine . . . or .5 to 1 percent (5,000 to 10,000 ppm) iodine. Concentrations below these levels won't do the job, reports Cornell specialist Roger Natzke.

GRAPE GROWERS in New York State admit to three consecutive years of good profits. Growers and industry people alike caution, however, to avoid being carried away by the situation . . . but rather to gear planting plans to processor needs.

NATIONAL FARMERS ORGANIZATION appears to have had 54,500 members, or 163,000 in 1970 . . . depending on whether present annual dues (\$75), or previous dues (\$25) are used for calculation. NFO filed figures with U.S. District Court for 1970, showing receipts from membership dues of \$4,078,084.

CORPORATION FARM will be strenuously belabored by politicians during election year '72. However, USDA survey shows that only one percent of nation's commercial farms are incorporated, and more than 90 percent of these are family corporations . . . set up primarily to facilitate passing the farm from one generation to the next.

In recent years, large-scale farming operations owned by several companies have gone under: Black Watch, Gates Rubber, CBK Agronomics, Multiponics, and Great Western Land Company.

MOLTING FORMULA from the University of New Hampshire goes like this: first day, remove all feed and water and reduce lighting to 8 hours daily . . . third day, resume water . . . eighth day, feed growing ration at 40 percent of normal consumption . . . 22nd day, go to full-feed laying ration . . . 28th day, resume normal lighting.

MILKER INFLATIONS should be used for no more than 1,500 milkings before being discarded, reports University of Vermont dairy specialist Richard Pratt.

GRAIN FEEDING in the milking parlor has long been debated in terms of adequacy. Wisconsin researchers say a cow can only eat one pound of grain per minute, and she may spend only seven minutes in the parlor per milking. High producers just can't get enough grain on that schedule!

Recommendation: feed basic grain ration mixed with silage outside the parlor, supplement it according to production level while milking.

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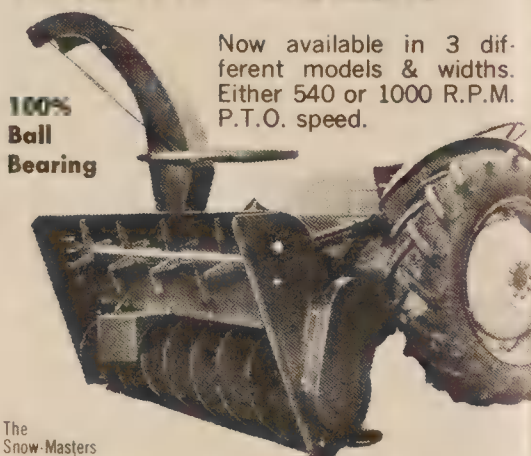
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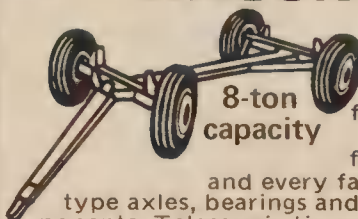
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WILLIAMSTOWN IRRIGATION, INC.
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Dairyman Al Jerger's herd waits for milking time. One end of outside feed bunk is at right.

better, not bigger

AL Jerger is the kind of person you first think about when you hear the words "Vermont farmer." He's a man of few words, a little reticent towards strangers, a bit skeptical of new ideas, frugal with his money and a down-to-earth, honest individual.

Jerger, a Ferrisburg dairyman for most of his adult life, was caught in a profit-land squeeze on his 400-acre farm several years ago. "I was gearing the dairy for greater production," he says, recalling his problems in 1965, "but I thought at first I'd have to increase my herd size, which meant I'd have to buy more land and hire more labor. I just didn't feel I could do either of these."

Family Operation

Jerger explains that he wanted to keep his dairy a family-run operation with a minimum of outside help. The tall Vermont dairyman thought about the alternatives facing him in this expansion dilemma. He could take on the additional labor burden of more livestock and land, or he could automate his present setup and attempt to increase herd averages rather than herd numbers.

He chose the latter course... and doesn't regret his move toward automation. Jerger's drive toward higher production on his 50-cow Holstein herd took two main directions: Increased feed efficiency in his roughage program, and the reduction of a costly grain bill by raising and storing his own high-moisture corn.

The step toward a better roughage program was Jerger's first move in his expansion program. He bought a 2060 Harvestore to handle his alfalfa as haylage rather than as baled hay and green-chop. "When I look at my year-round feeding program now, I am completely satisfied with the progress I've made since 1965 when I first started using haylage."

"The overall feed quality is much more efficient with haylage than with baled hay. Usually, I couldn't get my hay cut and dried enough to bale in June, and I lost many a good first crop because of that. But I've never lost a load of haylage in the past five years. Also, now I'm taking three crops off land that used to produce only two."

American Agriculturist, March, 1972

In addition to the elimination of bucking hay bales, which Jerger says "sure has made my back feel better," the Vermont dairyman has eliminated his green-chop program that "used to get me out in some of the worst weather imaginable and waste a good hour a day. I was so glad to see that green-chopping come to an end!"

Jerger has found, too, that his herd's milk production has stabilized since going to a consistent quality of roughage.

The second phase of Jerger's improved feeding program came in 1967 when he purchased another sealed storage, a small 20x22-for high-moisture grain storage. Jerger figures that by putting his home-grown corn into his grain structure at 30-percent moisture, he gets a palatable feed for much less money than he used to spend at the feed mill. "I've cut my grain bill about \$650 a month," he says.

"I realized how important that grain structure was to my operation here when one year I ran short of wet corn and had to pay \$1,000 a month for grain until I got my corn harvested."

In conjunction with his improved feeding program, Jerger installed a completely automated, belt-type feeder which leads to his outside feed bunk. "It only takes me 15 minutes each time I feed the cows," Jerger says, "and that's a darned sight less time than I used to spend green-chopping and hauling hay."

Results

So where has this increased feeding program left Al Jerger after five years? Let him tell it in his own words: "Our herd average right now is 15,700 pounds of milk on 54 Holsteins. The way I figure it, even with normal production increases because of upbreeding the herd, my previous program couldn't have attained a total production figure of up toward a million pounds without adding at least 20 cows. That would have meant more land and labor."

"But I've been able to increase my total milk production through an increased efficiency of feeding... and with no additional labor or land."



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main course dishes with eggs

by Alberta Shackelton

EGGS, A STAPLE FOOD in most kitchens, are a good alternate for meat in main dishes because they are high in nutrients — excellent quality protein, iron, vitamin A, riboflavin — and they're one of the few foods containing vitamin D. As relatively inexpensive as they are, they also help stretch the food budget.

For best quality, buy graded eggs at a market that keeps them in a refrigerated case. To store eggs properly, keep them clean, cold and covered and use within a week for best flavor. Do not wash before storing.

A word of caution in use of cracked eggs comes from the U.S. Department of Agriculture — "For your protection, use cracked or soiled eggs only when they are thoroughly cooked or when the foods in which they are an ingredient are thoroughly cooked."

You may be interested in securing a copy of the following bulletin: **Eggs in Family Meals**, a guide for consumers, Home and Garden Bulletin No. 103, U. S. Department of Agriculture. Send your request for this bulletin with 10 cents to Superintendent of Documents, U. S. Government Printing Office, Washington, D. C. 20402.



I hope your family will enjoy these recipes.

COMPANY CASSEROLE

- 8 hard-cooked eggs
- ¼ cup melted butter
- ½ teaspoon Worcestershire sauce
- ¼ teaspoon prepared mustard
- 1 teaspoon finely chopped parsley
- 1 teaspoon chopped chives or onion
- ⅓ cup finely chopped cooked ham
- 1 cup shredded American cheese
- 3 tablespoons butter
- 3 tablespoons flour
- 1 cup chicken broth
- ¾ cup milk
- Dash salt and pepper

Cut hard-cooked eggs in half lengthwise; remove and mash yolks. Mix yolks with butter, Worcestershire sauce, mustard, parsley, onion and ham. Fill whites with this mixture, piling up attractively. Arrange filled egg halves in a greased flat 1½ to 2-quart baking dish.

Melt butter, blend in flour and cook over low heat until bubbly. Stir in chicken broth, milk and seasonings. Cook over low heat, stirring constantly, until mixture is smooth and thickened throughout. Pour sauce over egg halves. Sprinkle with shredded cheese. Bake in a moderate oven (350°) for 20 minutes or until cheese is melted. Serves 4 to 6.

EGG AND POTATO SCRAMBLE

- 2 slices bacon
- 4 medium potatoes, sliced thin
- 1 teaspoon salt
- 4 eggs, beaten
- ¼ cup milk
- Dash pepper

Fry bacon slices crisp and remove from pan; reserve. Fry potatoes in the fat until they are well browned, sprinkling with salt as browning starts. Cover pan closely and cook over low heat until potatoes are tender.

Combine eggs, milk and pepper; pour over potatoes in pan and cook slowly, stirring occasionally, until eggs are set. Crumble bacon slices and add just before removing pan from heat. Serve at once to 4 people.

For variety: Bits of cooked ham, chipped beef, or any cooked meat may be used in place of bacon. Thin

light. Fold in pork, onions, bean sprouts and mushrooms. Place ½-cup portions in heated fat in pan. Cook until lightly browned on one side; turn and brown other side. Pour sauce over patties. Serves 6, two patties each.

Note: Shrimp, chicken, lamb, beef or turkey may be used instead of pork.

OVEN FRENCH TOAST

- 6 slices stale bread
- 2 eggs, beaten
- ¼ teaspoon salt
- ½ cup milk

Dip bread slices into mixture of eggs, salt and milk and place on a greased baking sheet. Bake in a very hot oven (500°) about 10 minutes or until browned. Serve hot with choice of syrup, jelly, honey or sprinkling of confectioners' sugar.



Photo: Poultry & Egg National Board

You'll be proud to serve Company Casserole to family or guests. Hard cooked eggs are richly filled, covered with a white sauce, and generously sprinkled with shredded cheese.

slices of sausages or chopped chicken livers are especially good. Fry potatoes in bacon fat or other meat drippings when omitting the bacon.

EGGS FU-YUNG

- 1 cup chicken broth
- ¼ teaspoon sugar
- 2 tablespoons soy sauce
- 1 tablespoon cornstarch
- ¼ cup water
- 6 eggs
- 1½ cups cooked, diced pork
- ¾ cup thinly sliced small onions
- 1 can bean sprouts, drained (1 lb. 4 oz.)
- 1 4-ounce can sliced mushrooms, drained
- 1 to 2 tablespoons fat or oil

Combine broth, sugar and soy sauce and heat to boiling. Blend cornstarch and water and stir slowly into boiling broth. Keep sauce warm while cooking egg mixture.

Beat eggs until very thick and

GOLDEN SPOON BREAD

- 3 cups milk
- 1 cup yellow cornmeal
- 4 egg yolks
- 2 tablespoons butter
- 1 tablespoon sugar
- 1 teaspoon salt
- 2 teaspoons baking powder
- 4 egg whites, beaten stiff but still moist

Bring 2½ cups milk to boiling and pour over cornmeal which has been mixed with the remaining ½ cup milk. Stir until smooth over low heat. Stir in yolks, butter, sugar, salt, and baking powder. Carefully fold in the beaten whites.

Pour into a greased (bottom only) 2-quart baking dish. Bake in a quick moderate oven (375°) for 45 minutes, or until set and delicately browned. Serves 6 to 8. Serve with plenty of butter and maple syrup if desired.

SHIRRED EGGS AND MUSHROOMS

- 1 pound fresh mushrooms cleaned and sliced

OR

- 1 large can sliced mushrooms
- 3 tablespoons butter
- Salt and pepper
- 1 tablespoon flour
- 1 cup rich milk or light cream
- 8 eggs

Sauté mushrooms in butter until light brown. Stir in flour and milk or cream and cook until slightly thickened. Divide mushroom mixture into four greased individual shallow serving dishes or low custard cups. Break 2 eggs into each dish and sprinkle with salt and pepper. Bake in a moderate oven (350°) for 8 to 10 minutes, or until eggs are of desirable doneness. Serve in same dishes.

CHEESE SOUFFLE

- 2 cups hot, very thick cream sauce
- ¼ teaspoon dry mustard
- Dash cayenne pepper
- ½ pound sharp cheese, shredded
- 6 eggs yolks, beaten
- 6 egg whites
- ¼ teaspoon cream tartar

Combine first four ingredients and stir until cheese is melted. Pouring mixture slowly, combine with the beaten yolks. Beat egg whites until foamy, add cream tartar and continue beating until stiff but not dry. Fold beaten whites carefully into the cheese mixture. Pour into an ungreased 2-quart casserole.

To make a crown, make a shallow path with a teaspoon, 1 inch from edge all around souffle. Bake in a slow oven (325°) about 40 to 50 minutes, or until set and lightly browned. Serve immediately to 6.

Note: For a Cheese-Rice Souffle, stir 1 cup cooked rice into the cream sauce-cheese-egg yolk mixture before folding in the beaten whites. The rice will add stability to the souffle and make it less likely to fall.



HOME

by Mildred W. Davis

Home doesn't mean much to folks any more,
The view from the hillside, the step by the door;
The gathering at mealtime, mother's good homemade bread;
Her warm words of welcome, the prayer before bed.
It's the "change for the better," this "modern exist"
That most folks now crave for
And don't know what they've missed.

VISITING with

Home Editor Augusta Chapman

In our January issue, I asked you to write me if you have a microwave oven. I expected to get many letters, but received only a few. Don't know if I'm just not widely "read," or if few people have the ovens. The letters I did get were most interesting, and here are parts from some of them.

Mrs. Myrtle L. Nudd, 206 Lanson Road, Ontario, New York, writes,

When we remodeled our 60-year-old kitchen several years ago, we installed a used restaurant microwave oven. It is one of the earlier ones, but we love it. We are vegetarians and also use eggs and milk, but anyone

The next letter comes from Mrs. Ralph W. Jerome of Naples, New York.

A year ago at Christmas, my husband gave me a microwave oven because we always had a freezer full of fruit (we specialize in small fruits), and I didn't use very much of it. It was never thawed at the right time. I either forgot it altogether or thawed it until it was no longer appetizing.

Now our fruit disappears like magic, as I thaw it in the radar range the last thing before we sit down to eat — 1 to 2 minutes for a pint of raspberries, strawberries, peaches or cherries. We like fruit best with a little ice still in it.

Hardly a meal goes by that I don't use my oven in some way. It provides us with many a fast meal, whether I'm working outside and come in just before mealtime, or get on a sewing binge and delay stopping to get a

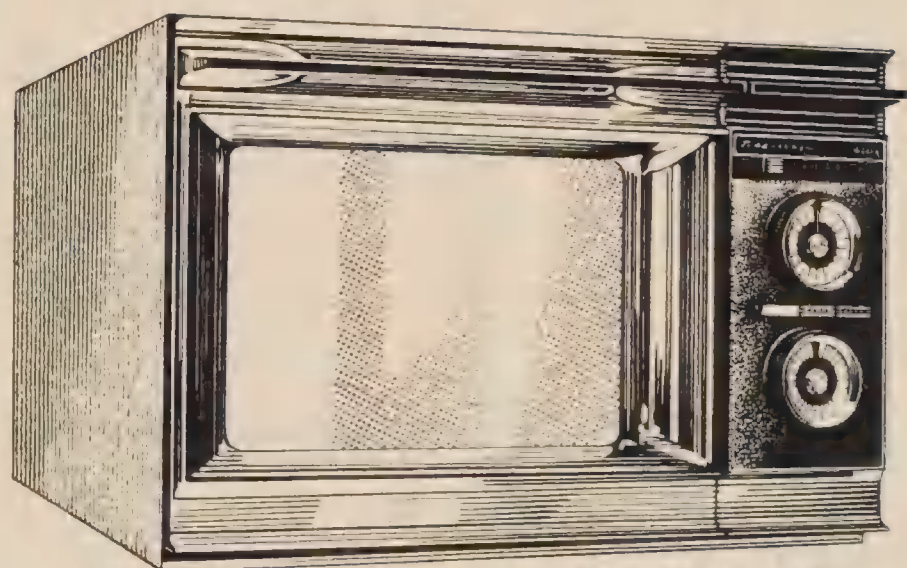
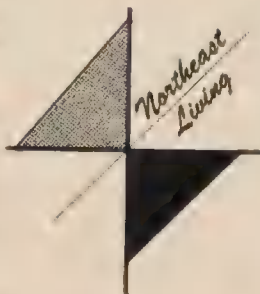


Photo: Bob Baker's Kitchens

The Radarange microwave oven by Amana ushered into the home a whole new era in cooking.

who uses meat would find the oven a great timesaver. Once a guest at Thanksgiving insisted on bringing a turkey. Her oven turned itself off (broken) ahead of time, and the meat was raw. Fifteen minutes in the microwave, and it was almost overdone.

I can ask anyone for a meal on the spur of the moment. Baked beans or casseroles frozen in non-metal containers are ready for the table while I set it and make the salad. Bread and other frozen things I've forgotten to thaw are ready in seconds.

Last summer my husband called and in 15 minutes arrived with four hungry men who had worked all night. By the time they had freshened up, I was setting their steaming plates in front of them. Don't remember exactly what we had — leftover scalloped potatoes was one thing and eggplant too, I think.

Baked potatoes are good; it takes 1½ to 2½ minutes, depending on size and type. I really prefer the regular oven for baking potatoes, but when one is in a hurry, there isn't that much difference.

The microwave will not take the place of a regular oven. Mine will not brown things. Breads get pretty tough if overdone, and hot fat in casseroles will ruin plastic.

Our oven has made life a lot easier in this house where long work hours, irregular coming to meals and a five-son, no-daughter family are the conditions. I wouldn't ever want to be without one.

meal. I use it to thaw pork chops and fryers as well as to cook them. In 9 minutes I can have three pork chops ready for dinner, and 16 minutes in the oven gives us three quarters of fryers ready to eat.

Cakes have a hill-and-valley appearance on top, but a mix yields a 9×13 loaf cake in 8 minutes, plus six cup cakes in 2 or 3 minutes. These are higher and lighter than any I can bake conventionally. While not as appetizing in appearance as those browned in a conventional oven, biscuits and cobblers can be baked from scratch in the radar oven — 4 to 4½ minutes for two cups biscuit mix made into biscuits.

Frozen baked goods are among the nicest things to come out of the oven. An assortment of coffee cakes, muffins, and biscuits from our freezer makes a delightful addition to any meal. My only trouble is finding time to put baked goods in the freezer in the first place!

Bacon covered with a paper towel cooks in about 1 minute per slice and comes out very nice. Our family never cared much for corn on the cob from the freezer. Now I package it in plastic film and slip it right in the oven. Cooking time depends on size and number of ears. It's much better this way.

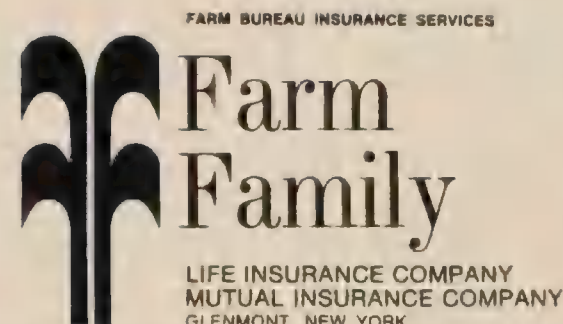
There are some disadvantages to microwave oven cooking. Not everything is good prepared this way, and you have to be willing to experiment. Baked potatoes don't bake as evenly

(Continued on page 37)

the right one for the job



The pilot is a well trained specialist supported by a company organized to give him all he needs to do the job right: mechanics, weathermen, ground crew, top-notch equipment; organized for top service and teamwork. Another good example of such teamwork is your Farm Family representative. He's an expert in his field and he's backed by the company created specifically for the programs and services to meet your special needs. Farm Life is unique and so are the programs offered by your Farm Family agent in the areas of Life insurance, retirement plans, liability coverage. The whole protection package for you and your farm. As a service to you through your Farm Bureau membership, you know that Farm Family is the right one for the job.



OUR NAME DESCRIBES OUR FIRST CONCERN



Garden Talk

by George and Katy Abraham

All About Pumpkins

A short while ago we thought we had the year's largest pumpkin, when an 8-year-old boy, Brian Pellitier of Ontario, New York, grew one weighing 157 pounds. After mentioning this in our December column, we received many letters telling us of larger pumpkins. I'll mention a few.

George Northrup of Mount Morris, N. Y., sent a picture of a pumpkin (or squash?) weighing 166 pounds. He writes, "My pumpkin was stolen on Halloween night by pranksters." We

hope they didn't rupture themselves!

Michael Yurkowitz of East Lyme, Conn., tells us his friend, a man 91 years young, had a pumpkin weighing 200 pounds. Orville Allen, who edits a publication for Agway, tells us one of his readers, Andrew Eckle of Blossvale, N. Y., grew a pumpkin weighing 165½ pounds, and he sent a picture to prove it.

Mrs. Louise Pitone of Dewitt, N.Y., writes, "Salted pumpkin seeds are a favorite snack at our house each fall. I prepare them by washing the seeds well and then soaking them for about three hours in a roasting pan, using ¼ cup of salt to 2 cups of water. Then I drain but do not rinse them. Spread seeds on the roasting pan and bake at 375 degrees until they are dried out, usually about 20 minutes. The proportion of salt to water can be varied to taste."

She adds that there are few things in life which are as great a bargain as a pumpkin. "At the very outset, buying a pumpkin provides a good excuse for a trip to the local country areas in prime foliage time. Children can see the corn cribs being filled, watch the apple harvest and learn how the farmers prepare for winter."

Umbrella Tree

The so-called "Umbrella Tree" makes a fine foliage plant for the office or home. This plant is tolerant of warm, relatively dry conditions. The more light it gets, the faster it grows. It will tolerate semi-shade, so if yours grows too fast, move it to a darker room. In the tropical forest, it reaches a height of 100 feet or more.

Do not pamper the Umbrella Tree. Allow it to get thoroughly dry before watering. It can be fed with a liquid food once a month or so. Cold, wet conditions cause leaf drop, and either poor drainage or over-watering will do the same.

In summer, check underside of foliage for red spider mites. Hold a piece of white paper under a leaf and tap it. Spider mites will drop to the paper, and you can see them better than on the leaves. If present, wash off with mild soap and water. Then if you want to be extra cautious, spray with Kelthane, a miticide. (Note: Insecticides will

not kill mites, since they are spiders and not insects.)

Small Umbrella Trees are useful in dish gardens, as well as for large specimens. The best soil for dish gardens consists of one-third each sand, peat and loam.

Starting Seed Indoors

There are several reasons why seed does not germinate properly. Light is not necessary for germina-

tion, so you can put your seed box in a dark place. When the seed starts to sprout, move the box to full light. Attic windows are fine if the temperature does not drop too low at night.

Temperature is very important. Most seeds like a temperature of 72 degrees or higher for germination. Too low a temperature causes seed to rot inside the seed coat. Soil mixture should be considered too. Seeds don't need a rich soil, but they do like a loose soil. The new instant soils (such as Jiffy-mix, etc.) are good because disease organisms are at a minimum. Florists use the soil-less mixtures.

Do not sow seeds, especially fine ones, too thickly. They should be at least ¼ inch apart. **Do not** cover

seed too deeply. Fine seeds, such as petunias, snapdragons, etc., have little "pushing up" power and will rot before germination if covered too deeply.

Cucumbers Again

Last year we received a lot of complaints from our readers, asking why their cukes were bitter or why they had a lot of nubbins and crooks. They wondered if it was the variety or if something was lacking in the soil.

Bitterness isn't too well understood; I wish I knew more about it. If someone reading this column understands bitterness of cukes, I hope he will write me. It is believed that cucumber flavor is best when there's no more than a 20-degree

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variation in temperature. A sharp drop in temperature following a warm spell will cause bitterness.

Nubbins and crooks are the result of improper pollination. That's why you shouldn't move the vines any more than necessary while cultivating or picking. Moving vines drives away bees, resulting in kinking and flattening of stems and increasing the number of misshapen fruit.

Ever try the cucumber called "Lemon?" It's a real cucumber that grows the size and color of a large ponderosa lemon. The flesh is white, with a sweet flavor. It's good for slicing and pickling, and this is one cucumber that does not "talk back" to you. We've never seen it develop bitterness.

DO YOU HAVE . . .

Odd pieces of Spode China, Sussex-S-1779 pattern, you do not want to keep? This request comes from Mrs. Lewis Lamb, South Otselic, N. Y. 13155.

Old post cards printed before 1920 you would send to Mrs. Harold B. Timmerman, R.D. 1, Little Falls, N. Y. 13365?

Old quilt patterns, especially one containing blocks of historical events, such as Betsy Ross making the first flag? Mrs. Mildred Dillon, 361 Harford Rd., Syracuse, N. Y. 13208, sends this request.

A bread mixer you are not using?

Mr. Byron E. Ward, R.D. 1, King Ferry, N. Y. 13081, says it clamps on a table and has a handle you turn to mix the bread.

Cups of Early Provincial Pattern with hand-painted roosters, roses, etc., you would consider selling? This request comes from Mrs. Richard E. Cole, Cabin Hill Rd., Andes, N. Y. 13731.

A recipe for Lemon Meringue Cake? Mrs. Robert Bearse, 330 E. 49th St., New York, N. Y. 10017, wishes you would share it with her.

Copies of Coats and Clark's instruction booklets #111 — Doilies and #120 — Tablecloths you are not using? If so, please contact Mrs. Mary Jones, Route 1, Venango, Pa. 16440.

Any idea where Roy F. Lagan, 264 Duncaster Rd., Bloomfield, Conn. 06002, can find a small hand sheller for peas and lima beans? Or a cutter for slicing beans French style?

A recipe for onion pie or onion kuchen? Mrs. Paul Patton, 273 Fairview Ave., Hudson, N. Y. 12534, would like to get them.

Visiting

(Continued from page 35)

as in a regular oven, but we're willing to sacrifice when time is of the essence. Nothing browns in the oven, so appearance of many foods is not appetizing.

I know I would hate very much to be without my radar range. My son is getting married in the spring, and he's looking forward to the time when they can "swing" the purchase of one. Some people say they have paid for their ovens in saving of food and electricity. I have no idea at all about that; I just know I like our oven very much.

Mrs. Harriet G. Fryer, R. D. 2, Altamont, New York, sends these thoughts about microwave cooking.

We have a microwave oven and love it. It takes a little getting used to, but I know we would never go back to using our conventional oven again. In fact, in the future I envision just counter-top cooking units and microwave ovens.

Using the oven, the first thing you learn is that the recipes you have always used and all the new ones you would like to try are written for the person who likes to stand over a hot stove! Look on page 35 of your January issue, for example, where it says to bake sour cream cookies in a hot oven (400°) for 12 to 15 minutes. Why don't you also say "or in a microwave oven for 2 or 2½ minutes, depending on size of the cookies?"

Then you also learn that no proper cooking dishes are on the market. I bake layer cakes in glass pie pans which have sloping sides because there is no such thing as a glass layer cake pan.

In a microwave oven, your old cake recipe makes a bigger, fluffier cake; it rises to the top of the cake dish and over it goes! In fact, cakes are best several days after baking because they are too fluffy to handle easily when first baked.

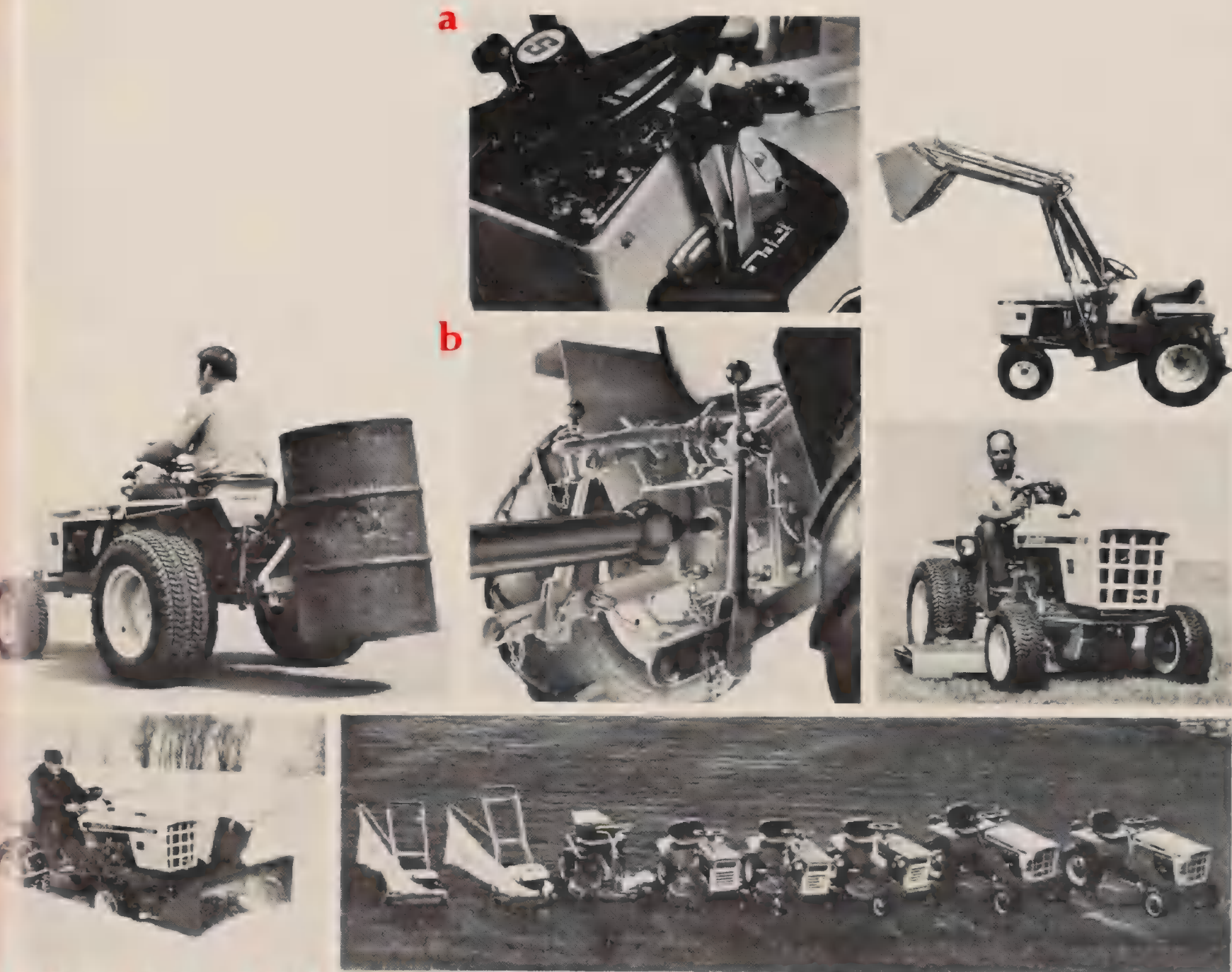
Planning a meal for days when we are really rushed or tired, we slice a piece or two of pre-cooked roast or other meat, cut up some cold potatoes with a piece of butter, add a vegetable, and put our plates in the oven for 2 minutes. We have a hot meal in a jiffy. No more warm-up pans to wash and no warming up an entire roast.

We have only begun to learn what we can do with our oven, since we got it just last summer. For us, it is here to stay, and I urge other people who lead busy lives to look closely at the oven of the future which is here now — the microwave!

IT COULD BE WORSE

by Beth M. Applegate

Buckle down your earflaps,
Button up your coat,
Put on your galoshes
And a muffler round your throat.
Fighting lashing gales may whip
The stiffening from your starch.
Just be glad it's not November —
Be thankful that it's March!



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10-18

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vacation in EUROPE this summer

Spring will soon be here officially, so summer and vacation time can't be far behind. You're probably already wondering what you'll do for vacation this year, and we invite you to go to Europe with AMERICAN AGRICULTURIST and Travel Service Bureau. We are offering four European tours and guarantee you the time of your life, whichever one you choose. Here are the dates for these trips and just a few highlights of each one.

Included on the itinerary of our **Holiday in Britain, May 14 to June 2**, are England's south coast and Devon, Cornwall, mysterious Stonehenge and Salisbury, all the famous sights of London, Shakespeare country with its nearby castles and cathedrals, medieval York, the walled city of Chester, and the beautiful Lake District, home of Wordsworth and Coleridge.

We tour the most scenic areas of northern Wales, then cross the border into Scotland and drive through the lovely Lowlands with its miles upon miles of stone fences lining the rolling hills, to Edinburgh. Here, we see the Castle, the Sir Walter Scott Memorial, famous Princess Street, the Royal Mile and Holyrood House, the Queen's official Scottish residence.

Next comes the Highlands area where we visit Perth, Balmoral Castle and the many lochs, most famous of which are Loch Ness and Loch Lomond. This is truly a most complete and satisfying tour of England and Scotland, and we hope you will come with us.

From May 30 to June 20, we will

visit the Land of the Midnight Sun on our Scandinavian Holiday. Sight-seeing in Denmark will include Hans Christian Andersen country and "wonderful, wonderful Copenhagen" with its beautiful Tivoli Gardens and nearby Frederiksborg Castle and Hamlet's Castle Kronberg.

Sweden comes next, and we will especially enjoy shopping for famous Swedish crystal and stainless ware in Stockholm's modern stores. We will see the unique Town Hall, old Riddarholm Church and other points of interest in Stockholm.

The mountains and fjords of Norway are beyond description. The capital city of Oslo is beautifully situated at the head of the magnificent Oslo Fjord. From Oslo, we have the opportunity to make one of the most popular excursions available in all Norway — a trip north of the Arctic Circle to see the full disc of the sun at midnight. We think you'll find this trip a highlight of the whole tour.

An added attraction of this year's Scandinavian Holiday is an interesting visit to Iceland. A few of the places we'll visit here are Reykjavik, Gullfoss, the Golden Waterfall, the Great Geysir, the tourist center of Laugarvatn, Thingvellir and the Namaskard hot springs area. At this time of year in Iceland, the sun rarely sets.

Greece and the Greek Isles

New for 1972 is our **Greece and Greek Islands Tour from July 11 to August 1**. It will be personally conducted by the Rev. Raymond Redje of Rochester, New York. Rev. Redje

(Continued on page 47)

Gordon Conklin, Editor
Box 370-T
Ithaca, New York 14850

Please send me without obligation on my part, the following tour itineraries:

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Gardens of Europe Tour _____	Greece and the Greek Isles _____
Holiday in Britain _____	Grand Alpine Holiday _____

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JOURNEY TO DAY BEFORE YESTERDAY

by E. R. Eastman



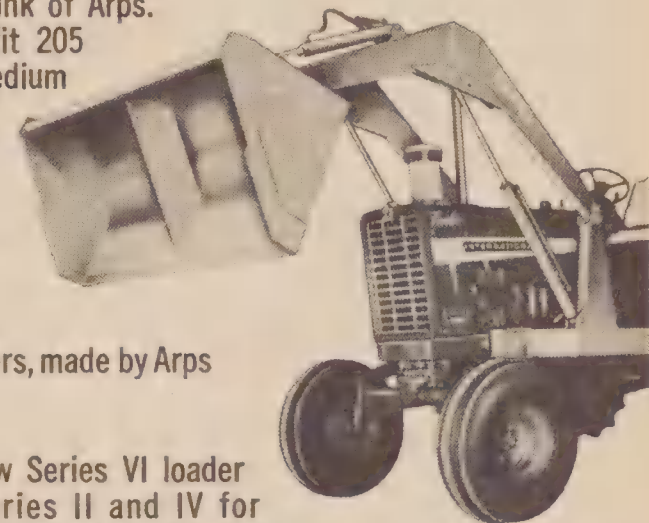
The sales of "Journey to Day Before Yesterday" continue to be good because so many who have read it keep telling others about it. Young and old alike get a kick out of learning how their forefathers lived; and youngsters really begin to believe that Grandpa's stories "really happened."

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NORTHEASTERN OHIO Graded Feeder Pig Sale at Geauga Livestock Comm., April 7, 1972 at Middlefield, Ohio. Phone 216/632-6881. Vet. inspected. Vac. for Erysipelas. Northeast Feeder Pig Assoc., c/o Melvin J. Herzberger, R.D. 2, Box 145, Burton, Ohio 44021.

BOARS - BRED AND OPEN GILTS. Feed and meat tested. All-American, Championship bloodlines. Big show winners Champion carcass over all breeds - Eastern National Spring Hog Show 1970 - length 31.5 in.; loin eye 6.56 sq. in.; backfat 1.1 in. Champion boar. Champion Gilt, Reserve carcass and Premier Exhibitor Award, Pa. Expo 1970. Test station feed records as low as 2.48 and daily gain as high as 2.28 lbs. per day. Brooks End and Par Kay Farms, Reno H. Thomas, Sales Mgr., Beavertown, Pa. 17813. Phone 717-658-5821.

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April Issue... Closes March 1 May Issue... Closes April 1 June Issue... Closes May 1

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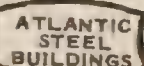
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CATTARAUGUS COUNTY - 50 miles South of Buffalo, N.Y., 500 acre gravel dairy farm with 12 stall herringbone parlor, 1000 gal. bulk tank, 2 large concrete silos, plus two 20 x 60 Harvester silos, 165 free stalls, bunk feeder-new, 2 houses, 180 head of milk cows, 5 tractors plus complete line of machinery for \$360,000.00, complete. Alford Bontrager Real Estate, 11901 Broadway, Alden, New York 14004. Phone: 716/937-9393.

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WYOMING COUNTY - 40 miles East of Buffalo, N.Y., 375 acre gravel dairy farm with 156 free stalls, 12 stall herringbone parlor-new, 1000 gal. tank, 100 ft. bunk feeder, 4 silos, barn 300 ft. long, 2 large machine storage buildings in excellent condition, 5 bedroom remodeled house, 6 tractors plus a complete line of equipment, with 206 head of cattle for \$300,000.00, complete, or can be purchased bare. Alford Bontrager Real Estate, 11901 Broadway, Alden, New York 14004. Phone 716/937-9393.

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282 ACRE DAIRY FARM for sale. Write William F. Miller, R.D. 1, Trout Run, Pa. 17771.

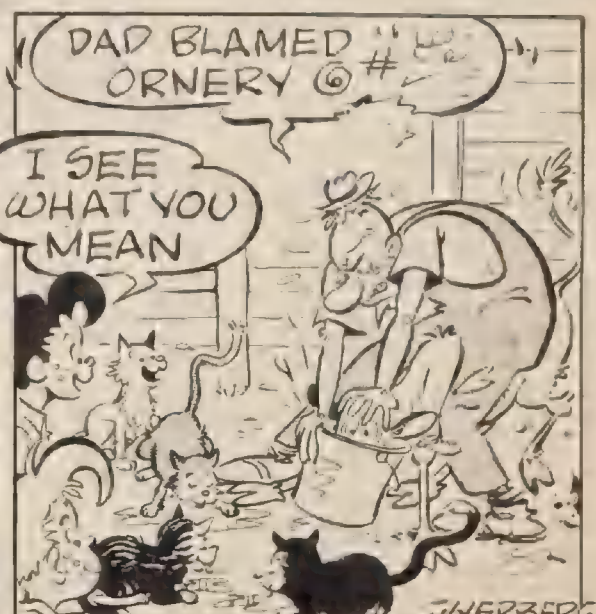
MOHAWK VALLEY FARMS. 345 acres, 200 tillable, bulk tank, barn cleaner, mow conveyor, excellent water, extra large home could be used as two-family. Secluded from main road. Immediate possession. \$65,000.00. 214 acres, stocked, equipped. Buildings are in rather poor condition but farm is operating. Land excellent. Cows look good. All for \$70,000.00. Many others in and around the Mohawk Valley. Contact John L. Subik, Broker, 27 West State St., Johnstown, N.Y. 12095. Call 518/762-4942 or 518/762-4451.

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LOW DOWN PAYMENT. A 137 acre farm with 70 tillable acres located 5 miles from Utica, N.Y. Has good barn with 47 stanchions and box stall. Farm is equipped with 16 x 40' concrete silo, silo unloader, barn cleaner and mow conveyor. Can be purchased with a \$10,000 down payment or with equity in your present dairy herd and equipment. Call Barmann's Realty Sales, Inc. at 914/343-1108 or write R.D. #4, Middletown, N.Y. 10940.

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DAIRY FARM - 247 acres, upper New York State. 95 head cattle, pipeline milker, bulk tank, silo unloader, gutter cleaner, all modern equipment. House and buildings excellent condition. \$145,000. Also, 306 acre farm, 180 acres tillable, 44 acres woodland; 57 head cattle; modern machinery, \$75,000. Terms available. Aeon Distributors, Inc., Box 8, Potsdam, N.Y. 13676. Phone 315/265-3740.

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DAIRY FARM LISTINGS Needed. Qualified buyers waiting. Wimpe, Realtors, Sloansville, N.Y. 12160. 518/875-6355.

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WANTED: SMALL FARM or house in country with land. Delaware or Maryland. Donald Bowman, R. 1, Ave. "C", Vincentown, N.J. 08088.

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WILLING TO SELL part interest in my farm to an aggressive farmer, must have approximately \$25,000.00 cash or equivalent in machinery and cattle. Farm consists of 700 acres tillable, can milk 150 cows, good houses and barns. Located in Herkimer County, New York. Reply to Box 369-AG, Ithaca, N.Y. 14850.

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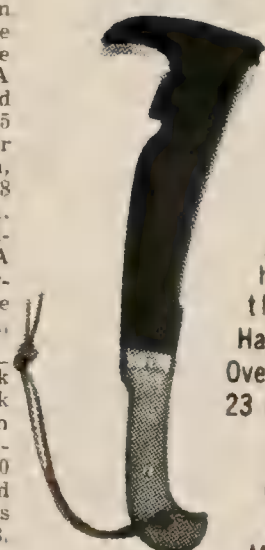
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American Agriculturist, March, 1972

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(Continued on page 29)

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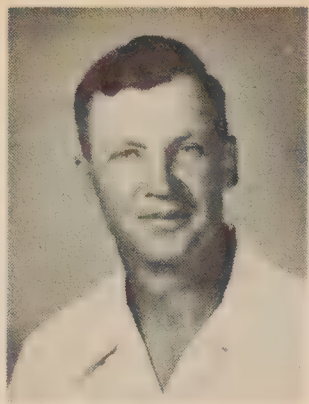


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RE-TRAINING

Each time farmers buy new machinery, or move into a new style of barn, or change their method of storing crops, they have to learn some new things. This upgrading of skills is not usually too painful if it merely involves learning a new manual operation or adjusting to larger and faster equipment.

Where the real pain and cost occurs is when new management skills have to be acquired and used. This can sometimes take quite a time and the mistakes made during the learning process can be unnerving. Just learning what to watch and care for in new housing setups, be they poultry or dairy, takes a little time.

I recall how it bothered me when we went to free stalls that it was no longer obvious if a cow was off feed. It's still not as easy to detect this as it was in a stanchion barn but one learns, of necessity, to watch for signs.

House, Too

As progress plods on in the house as well as the barn, some retraining is needed there, too. Seems like only yesterday when the new bride was happy or gloomy with the outcome of each new culinary venture. Now comes a micro-wave oven to be mastered. After the initial experimental stage when we tried a lot of things just to see if they would really be cooked in minutes or seconds, came the serious business of learning which things really did well in the oven and which did not. Perhaps equally important and mystifying was learning the proper timing.

For example, I pretty well ruined a plate of food meant for supper one night. Doris was away and left a complete meal on a plate. Just set the plate in the oven for two minutes, she said, and it would come out hot and fine. Well, I thought surely another minute or two would be better. Talk about hard biscuits and lousy broccoli and dehydrated steak!

Now that we are learning to use it properly, this new tool sure is great. Everything can be hot and ready while I'm washing up. It's a great thing for a busy woman and a busy farm family.

REGULATIONS AGAIN

A certain amount of regulation is necessary in any industry, and we have no quarrel with restrictions that have to do with protecting the consumer and preserving the quality of the product. However, now and again, some rules are promulgated which just don't make much sense. A case in point is the requirement that a producer must sign a certifi-

cate stating that any cattle he sells for beef have not had any diethylstilbestrol (DES) for at least seven days.

Such a regulation may or may not be needed in the case of beef cattle. I'm not about to expert on that one. How it can possibly have any bearing on cull dairy cows escapes me. DES is a female hormone which, when fed to steers, has promoted faster gains and leaner meat growth. Well and good, but who behind his big shiny desk thinks a dairyman might have fed some to a dairy cow? We would assume that the regulation would accomplish its purpose just as well if dairy cows were excluded from the requirement.

AGRICULTURAL DISTRICTS

A group of farmers in Schoharie County got together to apply for the establishment of an agricultural district comprising the lands they own and operate. Their application was approved at the county level, and has been sent on to the appropriate state agencies.

I think it is highly significant that this first district was proposed so soon after the law was passed. It indicates how badly such a law was needed. Perhaps equally as important, it indicates that non-farm people and agencies recognize as never before the advantages in protecting and preserving the best of our remaining agricultural land.

Here in our community, we are just starting the whole process which hopefully will bring us into an agricultural district a few months from now. The first step was to get a group of neighbors together to talk it over and see if there was sentiment in favor of trying to form a district.

Almost from the start, we felt that a sizable district might be more likely to get approval than would just a small area or a series of small areas. It obviously gets to be more of a chore to get a large group of people to agree to any proposal than would be the case if only two or three were involved.

The whole operation becomes one of getting to understand the provisions included in the law. Everyone must know what the districting of land provides for as regards taxation, the use of eminent domain, the provisions for sale of property for farm or non-farm uses, the duration of a district once formed, and a whole host of other related items.

Each farmer should then take time to see how this would influence his operation and his future and decide accordingly. In our area, as in many others, there are a good many small parcels, formerly farms in many cases, which are owned by non-farm

rural residents who rent the land to neighboring farmers. As long as this land is farmed it is eligible to be in a district. It is truly surprising how many people need to be involved if the district is to be more or less of a solid block.

Fortunately, the non-farm rural residents have about the same attitude toward districting as the full-time farmers, and have equally compelling reasons to be interested in joining with their neighbors. If this were not so, our proposed district would either have to be much smaller or it would be a hit-and-miss affair up and down the road, which I'm sure would not be a satisfactory arrangement.

Hopefully, we will have progress to report periodically. As this formation of agricultural districts is so new and so important, we can all benefit by the pooling of information as to how best to proceed. We'll be more than happy to pass along your experiences as a way of helping other neighborhood groups.

FARM PRICES

It's all too familiar and all too true that the farm price of many products is not much changed from twenty years ago. There are a variety of reasons for this and in some cases, even at the old prices money can still be made because of the changes in method of production. I suspect that corn production has shown as dramatic a decline in labor requirements as any major crop. Yesterday's prices are, therefore, not all that far out of line. With some other products where the reduction in labor costs has been less dramatic, the profit has been pretty well squeezed out.

Of a sudden, I've become aware of a farm product which is dramatically higher this year. Fur prices got so low that it literally wasn't worth going after anything but muskrats. This year coonskins have reached the \$6 level — up from nothing or 50 cents a couple of years ago. They are higher than since I was a boy trying to make an honest buck by skinning the fur off the local animals.

With the open winter to date, men with good coon dogs have been harvesting a crop which has been somewhat neglected in recent years. Many of us who have considerable corn field damage from Br'er Coon are pleased at their successes.

One of the puzzles to us has been the reluctance of the local boys to get out along the streams and in the marshes to trap muskrats. They complain that no one can hire them and, of course, they are right. Trapping would enable them to be self-employed and to earn some spending money. Sure, it can be a cold experience at times. We conclude only that most of them just don't need the money that badly.

AGRI-BUSINESS EDUCATION

For years, the meetings by the Extension folks have updated our thinking on a whole host of topics and been a real factor in hastening the adoption of new practices and varieties.

The last several years have seen various supply companies getting into the act. Whether it be to pro-

mote their line of machinery or a particular brand of seed, pesticide, or fertilizer, they had a story to tell and lesson to teach.

As long as one keeps in mind the obvious fact that this is both an educational and a selling pitch, this additional exposure is all to the good. As a matter of fact, in some cases the companies that specialize in a product can and have done more research and testing than anyone else. They can sometimes go beyond the more general recommendations that are on the label and be of help in special situations.

Because they can use the film over and over in a series of meetings across the country, some of these companies spend real money to come up with a professional presentation. We welcome their efforts in this area as being another source of information to help each of us improve our operations.

One seed corn company really stole a march on everyone by coming through with the latest information on the use of acids in storing high-moisture corn. Believe me, getting there "fustest with the mostest" really got attention from those in attendance.



Green Giants — Now's the time to find out if that huge tree in your yard or elsewhere on your property is the largest of its kind in New York State. If so, it'll be listed in a "Who's Who" of trees in New York, and placed in a national registry for comparison with other states.

The current project to locate the State's biggest trees . . . and to draw attention to the important part trees play in providing a wholesome environment . . . is sponsored by the Department of Environmental Conservation, in cooperation with the various District Forest Practice Boards.

Just to let you know what your tree may be up against, recent tape tests in Chenango County revealed circumference measurements including: red oak, 16'11"; hard maple, 10'10"; American elm, 17'1"; and Amur cork tree, 13'10".

To find out how your tree measures up, contact your local Forest Practice Board member, or regional forester.

Golden Opportunity — Fred Winch, natural resources specialist at Cornell University, reports that 1972 offers an exceptionally favorable opportunity for maple producers. "Markets are crying for sirup, but production has dropped," he comments. Prices for the '72 crop are expected to be sweet indeed!

Tree Digger — A new digging machine for young trees and ornamental plants has been developed by Penn State agricultural engineer K. Q. Stephenson. The machine . . . tested on a wide variety of plants, soils and nursery conditions . . . utilizes two hydraulically-powered trenching chains to cut a three-inch-wide trench around and under a plant.

American Agriculturist, March, 1972

SERVICE BUREAU

by M. A. Parsons

SERVICE BUREAU CLAIMS RECENTLY SETTLED

NEW YORK

Mrs. Walter Riedesel, Westfield ..\$100.00
(refund on certificate)
Mr. Clinton Burns, Palatine Bridge 65.00
(refund on part)
Mr. Willis Tryloff, Akron 24.95
(refund on order)
Mrs. Louis A. Jados, Pine Island .. 312.50
(payment for produce)

PENNSYLVANIA

Mr. John Rupert, Kirkwood 4.00
(refund on part order)

NEW JERSEY

Mrs. Albert Stults, Manasquan 2.98
(refund on order)

VERMONT

Mr. Chas. H. Hamilton, Jamaica .. 53.95
(refund on mixer)
Mrs. Patrick Branon, Fairfield 2.00
(refund on shirt)
Mrs. Milton Hammond, Newport .. 35.98
(refund on shoes)

PROBLEM SOLVED

In our January issue we printed an item concerning our lack of success in collecting for produce which a subscriber had sold to a Treadway Inn in Massachusetts a year ago. The problem was that, due to a change in ownership of Treadway Inns, we were unable to get the name and address of the proper party to contact.

We are happy to report that, finally, our subscriber's attorney received a check from an attorney in New Jersey for payment in full. We assume this was from the company that purchased Treadway Inns.

HUMAN HAIR

"I am enclosing a card I recently received from Ladies Fashions Wig Styling Club, Philadelphia, stating that I had won an \$89.00 100% human hair wig. I know of at least two other ladies in town who received identical cards.

"In November my married daughter in Michigan received the same offer. She sent the \$2.96 for postage and handling, received an inferior wig, which she returned and received another, styled, for which she had to pay \$12.50 COD.

"Is there any way you can investigate before many more people are taken in by this offer?"

Outfits, similar to this, first came to our attention in 1968, and since then we have printed several items about them. At that time, Elliott Nathaniel Scott, trading as Charles Wig Styling Club with a Philadelphia address, was convicted on ten counts of mail fraud. We were told that he had used over 35 trade styles and more than half a dozen addresses in peddling his wigs by mail.

In May of 1969, Ladies Fashions, Inc., was chartered under Pennsylvania laws, and we understand that Scott, who is now on probation, is general manager of that company. The advertising is similar to that of the past, in that a free wig is offered with the requirement that styling be purchased and a postage and handling fee be paid. This is not our idea of "free!"

American Agriculturist, March, 1972

Help When Needed!

Local agent "Turk" Muller of Bath, N.Y.
delivers North American benefits.



\$807.57 payment to John Helgerson.

Catching his left hand in an electric grinder at his farm workshop, Mr. Helgerson of Greenwood, N.Y. suffered a compound fracture of his thumb. Also loss of skin, tendons and bone from his hand required extensive surgical repair. Mr. Ernie Scribner, John's father-in-law, farm-owner and North American policyholder looks on approvingly as "Turk" Muller delivers \$807.57 in medical expense and weekly income benefits.

\$2210 payment to Elden Paddock.

Mr. Paddock of Branchport, N.Y., farmer, Yates County legislator and town supervisor, lost his arm in an unloading wagon accident. When he reached down to knock out a jammed ear of corn his glove caught on a beater pulling his arm into the chute. Carrying two North American policies, Mr. Paddock received loss of arm and medical expense benefits.



OTHER CLAIMS PAID — — — a friend's name may be in this list.

Anton Reichinger, Ilion, N.Y.\$ 368.00
Truck accident—cut scalp
Reid Leonard, Mohawk, N.Y. 387.70
Jack slipped—broke nose
Leslie Gyurko, Carthage, N.Y. 788.57
Truck camper accident—inj. head, arm
Homer Hobbs, Black River, N.Y. 340.95
Hit by car door—inj. arm
Francis Marriott, Lowville, N.Y. 1133.57
Motorcycle accident—broke leg
Minnie R. Virkler, Lowville, N.Y. 534.78
Fell off ladder—broke wrist
Leon E. Judd, Cazenovia, N.Y. 1079.00
Hit by tractor wheel—broke ribs
George Strussenberg, Hilton, N.Y. 1739.26
Auto accident—broke ribs
Dana VanLoan, Fort Plain, N.Y. 1183.57
Motorcycle accident—broke knee
James G. Edinger, Tully, N.Y. 353.58
Truck acc.—inj. back
Anna Mae McPherson, Holcomb, N.Y. 294.28
Slipped on ice—broke arm
Linus Hood, Medina, N.Y. 156.93
Kicked by cow—injured elbow
Delia Ottenschott, Parish, N.Y. 476.50
Fell down steps—broke wrist
Raymond Tuttle, West Edmeston, N.Y. 330.00
Fell from silo—broke ribs
Irene Von Dell, North Lawrence, N.Y. 291.42
Slipped off chair—broke ribs
Clarence Given, Edwards, N.Y. 501.42
Cleaning chopper—crushed finger
Stanley P. Borst, Sharon Springs, N.Y. 622.34
Cleaning mower—broke fingers

Terry Burns, Canisteo, N.Y.\$ 238.70
Gored by cow—broke hand
Donald Rice, Jr., Bath, N.Y. 1748.92
Auto accident—multi. cuts
Anna Nabrizny, Calverton, N.Y. 974.35
Fell on wet floor—head injury
Joseph S. Kile, Hurleyville, N.Y. 212.95
Fell on ice—broke collarbone
Muriel G. Warner, Lockwood, N.Y. 831.67
Auto accident—injured neck
Sophie O'Meal, Palmyra, N.Y. 377.64
Slipped on ladder—broke arm
Paul Keenan, North Java, N.Y. 499.38
Fell off truck—inj. shoulder
Mabel J. Hall, Columbia Cross Rds., Pa. 170.14
Slipped on ice—injured elbow
Robert Wright, Elkland, Pa. 282.93
Fell chasing cows—broke arm
Brian D. Randall, North East, Pa. 431.85
Fell off ladder—broke arm
Louis J. Hohn, Springville, Pa. 195.71
Snowmobile accident—cut thigh
Nicholas Danyluk, Great Meadows, N.J. 546.13
Thrown from truck—inj. back
Violet J. Giffin, Neshanic Station, N.J. 690.00
Kicked by horse—broke knee
Edith Passmore, E. Northfield, Mass. 276.68
Slipped on ice—broke wrist
Arthur Poirier, Exeter, N.H. 232.85
Ladder slipped on ice—broke wrist
James L. Garrow, Jr., Richford, Vt. 480.22
Stepped on by cow—broke ankle
Alduph S. Bovat, Swanton, Vt. 624.66
Fell off stepladder—broke ribs

Elmer Long, East Berne, N.Y.\$ 904.27
Auto accident—internal injury
Harry Hurd, Almond, N.Y. 1248.56
Thrown from horse—attacked by bull head inj.
Roger Eggleston, Whitney Point, N.Y. 276.95
Kicked by cow—injured back
Elsie Rhodes, Cattaraugus, N.Y. 891.17
Auto accident—broke rib
Douglas H. Ackley, Gowanda, N.Y. 681.35
Fell from tractor—broke foot
Fred Hess, Moravia, N.Y. 682.65
Slipped on ice—broke ankle
Stuart L. Crawford, Jamestown, N.Y. 889.60
Auto accident—cut scalp
Calvin Messinger, Jamestown, N.Y. 464.93
Fell off horse—broke leg
Henschel Rhode, Lowman, N.Y. 1253.17
Caught in PTO—broke ribs
Anna Backus, Afton, N.Y. 1325.00
Slipped and fell—inj. back
Chester Sears, Churubusco, N.Y. 510.36
Splattered cooking oil—burned arm
Hessel Murray, Truxton, N.Y. 986.98
Tractor overturned—broke hip
Dorothy Johnson, Delhi, N.Y. 325.96
Knocked down by horse—inj. leg
Reed U. Potter, South Wales, N.Y. 271.42
Auto accident—inj. leg
Joseph J. Harrigan, Chateaugay, N.Y. 287.64
Caught in snow blower—inj. fingers
Robert F. MacVean, Johnstown, N.Y. 172.97
Thrown from wagon—inj. legs
Merrill A. Boyd, Pavilion, N.Y. 289.40
Fell on ice—broke leg

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- You leave NO footprints nor wheelmarks!
- Has TWO SPEEDS! REVERSE!
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- Several models, including ELEC-TRIC STARTING!
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- Furrowing, snow removal and other attachments available!
- Automotive-type engineering — precision gears, Timken bearings, no chains to stretch, wear or work loose!
- Sold direct to keep prices down—would have to be at least \$100 higher if sold ordinary ways!



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City

State Zip

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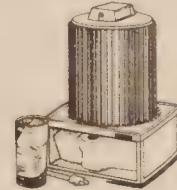
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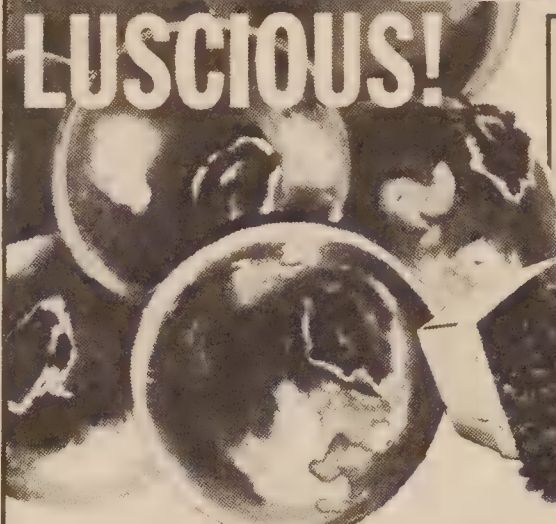
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☐ 250 for 65.00 N.Y.S. Residents add 4% (plus local) Sales Tax.

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HANDY for Farm and Home

No Rust — Apply vaseline to the bulb base of a porch light or any other outdoor light to prevent rusting or corroding and also make it easier to remove the bulb for replacement.

Non-Skid — To make a non-skid footing, wrap the most-used rungs of your ladder with thin strips of rubber cut from an old inner tube. Use roofing cement as the adhesive, tack the rubber at one end, and wind tightly around each rung.

Vacation

(Continued from page 39)

knows this area well and will make it come alive for you in a way you'll never forget.

We'll see the major points of Yugoslavia, including Belgrade, Dubrovnik and the hotel-town of Sveti Stefan. In Greece, we'll visit Corinth, Olympia, Delphi, the lovely seaside town of Nauplia, and see all the historic places in Athens.

It is in Athens that we board our luxury ship for a week-long cruise through the Greek Islands — Crete, Santorini, Rhodes, Delos and Mykonos to name a few — with a stopover in Istanbul, Turkey. You will feel the clock has turned back and you are walking through the pages of history!

Grand Alpine Holiday

Our **Grand Alpine Holiday** from **August 3 to 21** gives you 18 glorious days in some of the most beautiful mountains of the world, the Alps of Switzerland, Bavaria, Austria and France.

Just think of seeing Geneva, Mont Blanc, Chamonix, Zermatt and the Matterhorn, the Bernese Oberland, the magnificent Jungfrau, Berne, Lucerne, and St. Moritz. Then add the Italian Dolomites, Vienna, Salzburg, Innsbruck, plus a Danube River cruise, and you have one of the most scenic trips that it's possible to take anywhere in the world!

Springtime Tours

There is still space available on the two tours we told you about last month, but make your reservations **very soon**. Our **Springtime in the Virginias** tour (**April 22 to 30**) will take us to some of the most beautiful gardens and historic homes in America. Included are Williamsburg, Jamestown, Richmond, Charlottesville, the beautiful Skyline Drive, Luray Caverns, and a delightful stay at the world-famous Greenbrier in White Sulphur Springs, West Virginia.

On our **Gardens of Europe Tour** (**April 27 to May 13**), we'll see the loveliest gardens of Holland, Belgium, France and England. We'll enjoy Tulip Time in Holland and the famous floral parade, the beautiful gardens of Paris and the Loire Valley, the Palace and Gardens of Versailles, London, Syon Park, Windsor, Saville Gardens, and the Royal Botanical Gardens, as well as many other interesting and historic places. Every day is one of breathtaking beauty!

American Agriculturist, March, 1972

More Grit — A sheet of used sandpaper may still have plenty of grit in it. Instead of discarding it, clean it with a small stiff brush dipped in turpentine.

Easy Hunting — Don't waste time hunting through an assortment of odds and ends stored in a glass jar. Cut off one corner of an old rectangular flat cake pan with a hacksaw. Pour the items in it where you can easily spot what you need. The corner "spout" enables you to pour the articles back into the jar.

Sheet Metal — Cutting of sheet metal is made easier if candle wax is rubbed along the layout line. The wax acts as a lubricant for the tin snip blades. This is especially help-

ful when cutting sheet metal around sharp corners.

Container — Aluminum foil, shaped to fit a shallow bowl or cup, makes a convenient container for small amounts of plaster, paint or glue. After you're through with your work, discard the foil.

Screw Loose — Having trouble removing a rusty screw? Heat it with a soldering iron to make it expand. When screw head is cool, you'll find it easy to loosen.

Yarn Wrap — A length of ordinary cotton string or yarn will prevent paint from running down a brush handle when you are painting over-

head. Merely wrap a dozen or so turns of the yarn around the bristles, close to the handle. The yarn may be slipped off and replaced with a new wrapping if it becomes saturated with paint before the job is finished.

No Splinter — When cutting through plywood, coat the saw with paraffin. This usually helps to prevent splintering.

No Dry — A paint brush that's to be used the next day does not have to be cleaned for overnight storage. Wrap the bristles in aluminum foil or plastic wrap. A well-wrapped brush, protected from the drying effects of air, will remain moist through the night.



Welcome

Steve and Barbara Parks live in a house with walls two feet thick. "It's been here forever," says Barbara.

So has their old-fashioned brand of hospitality. They even welcome stray cats. "People think a dairy farm is a good place to drop off kittens," says Barbara. "In the spring we have about 30

—we feed them four quarts of milk a day."

The family farm on which they live and work has now grown to a corporation with a modern pasteurizing plant and a four-truck delivery route.

"You really have to take good care of equipment to make a farm pay today," says Steve. "As far back as I

can remember, Dad always used Champions. I do too. In my Ford pickup—in all the farm engines. Even the Ski-Doo."



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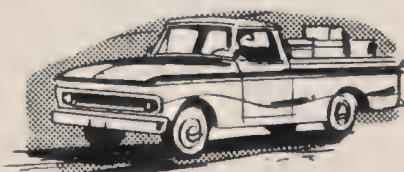
American Agriculturist

and the
RURAL NEW YORKER



BUYING A USED TRUCK?

Here's how to look 'em over . . .



by Wes Thomas

FOR many hauling needs, a used pick-up truck is just as satisfactory as a new one . . . and you can buy the used one at a considerably lower price. However, you'll need to do some careful shopping if you are to find a true bargain.

You can tell a lot about a used truck without ever moving it, if you look for the right things. This first step will eliminate the poorest candidates.

Engine Check

After checking such readily visible items as tires and body sheet metal, open the engine compartment. Just because the engine is clean and free of oily dirt, don't automatically assume that it's in first-class mechanical shape. If the truck is on a dealer's lot, he may well have just cleaned the engine of a heavy coating of grime.

Remove the dipstick and check the condition of the oil that clings to the stick. If the oil is extra-heavy when cold, it may have been used to cut down oil consumption resulting from excessive engine wear. Water in the oil gives it a milky appearance after the engine is operated. This may be the result of a leaky head gasket or other break in the separating walls between oil and water.

Next, check the condition of the front end and steering system. Check front-wheel bearings for free play by jacking up one wheel, grasping the tire, and shaking it in and out. If the wheel tips in, it usually indicates a loose knuckle, or a bent axle. While the wheel is jacked up, remove it and check bearing condition and thickness of brake lining.

Steering

After reinstalling the wheel and removing the jack, try moving the steering wheel while watching the front wheel. The distance that the wheel can be moved back and forth before the front wheel moves is a measure of the **free play** in the steering linkage. Play in the steering gear can usually be taken up by a simple adjustment, and tie rod ends and drag links aren't particularly expensive to replace. However, other parts of the steering system are more costly to replace.

Uneven tread wear on the front tires indicates poor steering alignment. Such misalignment can be corrected by a relatively inexpensive alignment job . . . but only if the parts are not excessively worn.



The rear axle, wheels, differential, and driveshaft should be checked carefully. The extra effort of looking under the truck bed may save some expensive repair bills in the future.

Grease or oil on the inside of the rear tire usually indicates a leaky seal on the axle, or a leaky hydraulic-brake wheel cylinder. Either one will soon ruin the brake lining.

Check the driveshaft for loose universal joints by shaking. Also look for signs of leakage where the shaft enters the differential case and the transmission housing. Replacing the seals may be expensive.

While inspecting the underneath portions, check the springs for any signs of breaks, and the frame for any indication of special reinforcements which would have permitted overloading.

Also carefully check for any signs of frame-straightening made necessary by the truck having been in a wreck. Once a frame is sprung in

a wreck, it's usually difficult to restore and maintain satisfactory alignment of front and rear axles.

Rolling Check

After a truck passes these stationary inspections, complete the checkout by a test drive.

Arrange with the dealer to keep the truck for about an hour, and plan to drive it 15 to 20 miles.

When you start, the oil pressure should be high and the generator charging rate high. As the battery recharges, the ammeter reading will decrease, but oil pressure should stay up.

Check for color of exhaust gas coming from the tailpipe. Black smoke indicates an overly-rich adjustment of the carburetor. This

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can be easily corrected. However, bluish smoke indicates high oil consumption from leakage past engine bearings or piston rings... usually an expensive condition to correct. Check engine temperature several times during your test drive. If the engine overheats, the cooling system is clogged or leaking.

Listen for any unusual noises such as clicking or howling of gears, or other knocks, thumps, or growls from any mechanical parts of the truck. In general, any such noises... beyond a light clicking of the valve tappets... indicates troubles which are expensive to repair.

Clutch and brakes can be checked by stopping the truck, setting the hand brake, and trying to move the truck in first gear. If the engine

stalls, clutch and brake are probably in good condition. If the engine continues to run, but the truck doesn't move, the clutch is slipping.

Check the condition of the brake hydraulic system by holding a steady foot pressure against the brake pedal. If the pedal slowly sinks, the brake cylinders are leaking.

Oil Leaks

When the engine is warm at the end of the test run, check for engine and transmission oil leaks. These leaks are easier to spot if you place some paper, such as old newspapers, under the engine and transmission. If oil spots develop, check for the source of the leak.

Leaky gaskets at the oil pan, the rocker-arm cover, or the push rod

side plate are easily and inexpensively replaced.

However, oil leaks that originate from either the front of the engine under the fan-drive pulley, or at the clutch housing, usually indicate that the oil seals or main bearings are faulty. These are usually expensive to repair. Also check for leaks where the shaft joins the transmission case. These leaks are also likely to be costly to repair.

Just as in buying a used tractor, the fact that the truck is used is the reason for its lower price. So the chances of ever finding one in "like new" condition aren't very great. Instead, look for one in which the selling price, plus the cost of necessary repairs to meet your needs, add up to the best buy.

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and the
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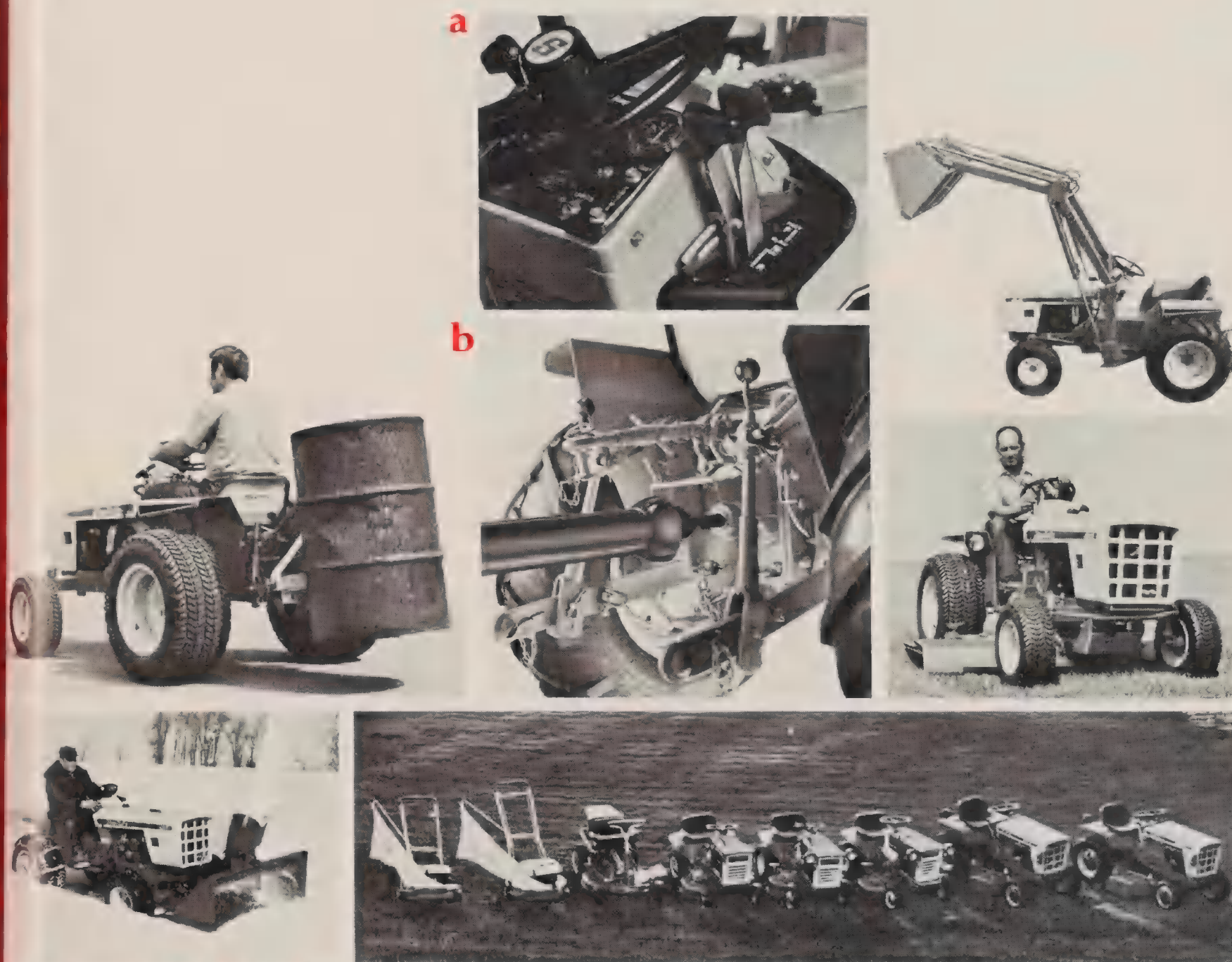
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OUR COVER

Some work-gnarled New Englander once laid up this stone wall on Main Road near Gill, Massachusetts. His wife, seeking some touch of beauty amidst the dreariness of endless toil, planted some daffodils... and their beauty still enchants the passerby. Photo: Herbert Shumway



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CHICK GROWTH

Most poultry raisers start their chicks at 95 degrees F., and drop the temperature 5 degrees each week. Poultry scientists at the University of Wisconsin have found that chicks grow much faster when started at 86 degrees F., kept at that temperature for three weeks and then dropped 5 degrees a week. This method also reduces heating costs.

Most farmers also raise their chicks under 10 to 15-foot candles of light intensity. This is another unneeded expense, say the Wiscon-

sin researchers, claiming that chicks do better under only 1/2 to 5 1/2 foot-candles of light.

WATER SCRUBBERS

Agricultural Research Service experimenters report favorable results from the use of water spray chambers for reducing odors from high-intensity poultry houses.

The house involved in the experiment held 12,000 birds, and was equipped with seven exhaust fans, each rated at 10,000 cfm. Baffles were installed in housings fitted over the exhaust fans, and spray nozzles were placed between the fans and the baffles.

The water, after being used to accumulate dust and odors from moving air, is drained into a storage tank for reuse.

HEALTHIER HENS

Hens vaccinated against Marek's disease have a higher resistance to other poultry diseases as well. So reports Dr. Robert Miller of Merck Chemical Division, who points out that the virus causing Marek's disease often invades organs that are essential to a bird's system of natural immunity and lowers the ability to produce antibodies against infection.

Such birds . . . even though not dying from Marek's disease . . . will have less resistance to most infections and will thus grow less efficiently. Their entire health status is likely to be on a lower plane.

Merck markets animal health and feed products, including Deftavac HVT, a vaccine which protects against the development of Marek's disease.

Dates to Remember

Apr. 6 - Agricultural Leaders Forum, Cornell University, Ithaca, N.Y.

Apr. 6-9 - International Salon of Farm Machinery, Place Bonaventure, Montreal, Quebec

Apr. 7-9 - Franklin County Maple Festival, St. Albans, Vt.

Apr. 8 - Annual Meeting NYS Guernsey Breeders Cooperative, Holiday Inn, Thruway Exit 39, Syracuse, N.Y.

Apr. 8-9 - Central New York Maple Festival, Marathon, N.Y.

Apr. 12 - Annual New England Dairy Feed Conference, Hotel Lenox, Boston, Mass.

Apr. 14-16 - New York Hereford Association bus tour to outstanding Hereford operations in Pennsylvania, Maryland and Virginia. For information, contact Neil Bonter, Howard Road, Holley, N.Y. 14470.

Apr. 15 - New York Angus Association Sale, Phelps, N.Y.

Apr. 16-17 - Annual Polled Shorthorn Congress, New Stockyards Sale Pavilion, Kansas City, Mo.

Apr. 27-29 - Annual Delmarva Chicken Festival and Chicken Cooking Contest, Dover Downs Raceway, Dover, Del.

Apr. 29 - Annual Schoharie County Maple Festival, Jefferson, N.Y.

May 6-7 - Annual Potter-Tioga Maple Festival, Coudersport, Pa.

May 14-17 - Annual Convention American Feed Manufacturers Association, Sheraton-Park Hotel, Washington, D.C.

May 20 - New England Angus Association Spring Sale, University of New Hampshire, Durham, N.H.

May 21 - Annual Buck and Kid Show, sponsored by NYS Dairy Goat Breeders Association, Fairgrounds, Altamont, N.Y.

May 21 - Draft Horse Plowing Contest, sponsored by NYS Draft Horse Club, John Beard Farm, East River Road, near East Homer, N.Y.

May 29 - Memorial Day

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KEEP IT DRY

Agricultural engineer Bob Light of the University of Massachusetts recommends these steps to adequately ventilate a dairy stable:

1. Provide a continuous ventilation rate at 30 to 50 total cubic feet per minute (cfm) per 1000 pounds of cow for cold weather. This is not necessarily per cow . . . but per 1000 pounds of livestock in the barn.

2. Provide supplemental ventilation under thermostatic control for warmer weather . . . up to 100-150 total cfm per 1000 pounds of cow in late fall and early spring.

3. Provide adequate wall and ceiling insulation (3" to 6" thick) to keep surface temperatures above the dewpoint.

4. Use a vapor barrier on the warm side of the insulation to restrict condensation within the wall.

American Agriculturist, April, 1972

EDITORIALS

by GORDON CONKLIN



ONE JUMP AHEAD

My family tree includes several nationalities, including Irish... and I shudder to think that distant relatives even now may be at each other's throats on the Ould Sod. Antagonism between Protestant and Roman Catholic across the ages has been a tragedy of enormous dimension... dividing families, triggering devastating wars, and developing exquisitely-painful forms of human torture.

Fortunately, the open society we enjoy has lessened tensions to the point where my family and I could attend a special community church service not long ago where Protestant ministers and Catholic priest joined in conducting the program at a Catholic church. We humans face enough tragedy and problems in our brief lives without compounding our tribulations with violent squabbling over theology... and I applaud heartily the growing tolerance of church leadership in these matters.

However, bitterness between Catholic and Protestant still develops over the matter of public aid to non-public schools. It's my conviction that the state should not financially support **any** church... a lesson learned at such a bitter price over the centuries in Europe.

In New York State, though, the politicians have pulled an end run on the constitutional mandate against such aid. They pass a law giving aid in some form to parochial schools... and shovel out the money... then, after several years, the law is declared unconstitutional by the courts. Next, the pols pass a new law extending aid in a different way, and the whole procedure goes around again.

The catch is that **none of the money which was illegally provided and spent is ever returned!** Thus, the politicians can always keep one jump ahead of the courts... the non-public schools get public funds all the while the case languishes in the judicial maze... and the taxpayers are forced to finance the whole monkeybusiness!

How's that for an example to our young folks to obey the law?

HANGING UP THE FIDDLE

Had a visit with Don Huddleston not long ago... he's only recently retired from nearly 25 years of county agent work in St. Lawrence County, New York. Before that, he had taught vo-ag classes at several schools, and had been ASCS office manager at Malone, New York.

Don has seen enormous change in his time... all the way from transportation by horse and buggy to men walking on the moon. Growing up in the town of Fowler in St. Lawrence County, he helped out on the 50-acre home farm... with all of 8 cows in the herd. Money wasn't very plentiful, so he washed mountains of dishes to help pay expenses during his years at Cornell University.

I've always admired Don for his ability to get to the heart of a situation quickly... and for his frankness. During our visit, he commented:

"I'm not going to be a J. Edgar Hoover, but rather quit while I'm ahead... or at least think I'm ahead!"

"Many of our community organizations were put together during the horse-and-buggy days. They met a social need then, but people are now socialized to death. Therefore, many organizations are struggling to maintain membership. Younger people are turned off by ritual, and by windy generalities... they see the often tragic problems of the world on television, in

American Agriculturist, April, 1972

publications, and in their own experience... they want **involvement** in the action.

"Local people should identify the problems to be tackled by public agencies. Certainly the think tank crews at Albany, Washington or elsewhere should identify problems and suggest solutions as they see them. But many of these programs are irrelevant for a particular county situation. Suggestions are fine, but it's pretty important that local people make the final decision.

"Work with the so-called disadvantaged people has to be done on a one-to-one basis because these folks generally won't attend meetings, and don't read educational material. It is tremendously expensive to undertake programs of work with this group. Work with disadvantaged people can produce some very worthwhile results, provided he who promotes the dance is ready, willing, and able to pay the fiddler!

"For those of us who were trained to be county agricultural agents, some of the fun has gone out of Extension work... so many social programs are being pushed so hard... tough to organize and carry out, and difficult to measure results. On the other hand, the new crop of agents see present-day problems with young eyes, and they see a challenge in new programs to solve those problems.

"Farm people are the finest folks in the world to work with."

Hundreds of people who have long done constructive work on behalf of northeastern farmers retire every year. To Don Huddleston as a representative of that group, and to all the rest, I pay tribute for a job well done... and offer best wishes for a retirement as challenging and active as they want it to be.

ELBOW ROOM

The number-one priority of the Massachusetts Farm Bureau Federation for 1972 is the attainment of a favorable vote by the Bay State electorate on a constitutional amendment (listed number one on the ballot) permitting use-assessment of agricultural land. Stated simply, this would mean that assessors would be directed to assess agricultural and horticultural land according to its value for present use... not on the basis of some potential use for industrial sites, housing development, or some other urban purpose.

The states of Connecticut, Delaware, Maryland, New Jersey and New York are among those already having some form of present-use assessment programs in connection with agricultural land. New Hampshire, like Massachusetts, is involved with efforts to move in that direction in 1972... but the Granite State has already cleared the constitutional amendment hurdle.

Selling the general public on the desirability of giving farmers a break on their real estate taxes has not been difficult if it has been done **on the basis of open-space preservation and enhanced quality of the environment.** Hard-pressed urban taxpayers won't buy the idea that farmers are so economically downtrodden as to justify preferential taxation... nor will they buy the idea that the supermarkets will be empty someday if developers continue to chew up farmland in the Northeast. But they are tremendously receptive to the contention that the lives of farm and non-farm people alike will be far more abundant if **taxpaying open space** is preserved.

The Massachusetts Committee to Save Open

Space recognizes this fact, and is hammering home the awareness of what the Bay State will become if it continues to be a state where urban developers pick off one good farm after another as farmers struggle in the real-estate-tax grinder.

The experts in states already having some kind of present-use taxation for farmlands don't entirely agree as to the level of effectiveness enjoyed by this approach to land-use regulation. However, there appears to be general agreement that such taxation procedures do at least **slow** the remorseless advance of the cities and suburbs across the fertile fields of the land.

Future generations, if crunched by the kind of population growth some predict, may be forced to far more drastic measures to maintain the elbow room that sociologists claim is so desperately needed by the human race. But for now, present-use assessment is a mighty useful arrow for the bow of fulfilling the "territorial imperative" in the hearts of all of us.

GOOD NEIGHBORS

Our good neighbors to the north in Canada are having a giant farm machinery show on April 6-9 in Montreal. Their lingo is a bit different than ours, so its official handle is the "International Salon of Farm Machinery."

There will be 130 exhibitors from 10 countries who will display their wares... including manufacturers of poultry equipment, as well as field and farmstead machinery.

The show's managing director, Gabriel Renaud, stopped by AMERICAN AGRICULTURIST offices not long ago and extended an invitation to everyone in the Northeast. The exhibit will be located at the Place Bonaventure in the heart of Montreal... right close to that superb shopping so dear to the better half's heart.

To see the latest in farm machinery... combined with a whirl at a delightful tourist attraction... head for the bright lights where the Ottawa and St. Lawrence rivers meet!

THE OTHER SIDE

Most thoughtful people have long recognized that there are two sides to every argument... and that the emotion normally generated by any controversy tends to obscure the truth.

A 30-minute film, entitled, "The Road To Delano," tells the growers' (and workers') side of the notorious boycott of California grapes. It presents several workers who "tell it like it was"... including the fact that Cesar Chavez and his United Farm Workers Organizing Committee lost the only secret ballot election involving UFWOC... one held by the Federal Mediation and Conciliation Service, at Shafter, California, in April of 1971. The workers were delivered to the union by their employers... but as a result of the economic pressure generated by a secondary boycott, not because the workers elected to be UFWOC'd!

State Farm Bureau offices can provide information about the film's availability.

GUEST EDITORIAL

A conservative estimate places 25,000 men working on pest control research, development, and sales. This includes state and federal government as well as industry. In addition, many more persons work in plants producing these chemicals. But according to the innuendoes of some well-meaning ecologists and environmentalists, these dedicated and highly-trained people are bent solely on poisoning man and his environment to make a profit.

But each of us involved in pest control has as vital an interest as anyone else... it's our environment too!—Dr. George MacCollom, *Extension Entomologist, University of Vermont.*



Seed treatment on corn will vary in 1972 from state to state and company to company. Most farmers should plan on a planter-box treatment.

seed treatments for 1972

by Bill Pardee

THE seed treatment situation for 1972 seems to be taking shape, though it has been confusing to say the least. What with shifts in state and federal laws, in chemical clearances, and in company policy, it's been a tough story to follow.

One thing for sure, you'll have fewer chemicals available . . . and more seed will come your way untreated. So this year it'll pay you to check carefully to see if your seed is treated and if so, whether the chemicals will solve your particular problems. If it's not treated, or if the treatment used doesn't fill your need, then it will pay you to treat the seed yourself.

As pointers on what to look for, we've pulled together the following information. Please note that to the best of our knowledge these comments are correct at the time of writing. We'll hope they still are when you read the article!

In considering these, remember that the purpose of seed treatment is to provide protection for the seed from insects and diseases. Big spring uses for treatments have normally been on oats, dry beans and corn. On oats, we've normally used fungicides to control smuts and soil-borne

diseases. On corn, it's been fungicides to fend off seed rots and seedling blights, and insecticides to protect against the seed corn maggot.

Seed treatments on corn will vary from state to state and company to company. Several will be selling untreated corn, others will have on a fungicide. Only a few will treat with an insecticide.

Dieldrin, the long-favored treatment for protection against seed corn maggot, is illegal in New York, and under fire in some other states. So you won't see much dieldrin-treated seed. This may not be as bad as it sounds, since the seed corn maggot has become resistant to this chemical in many major corn growing areas.

Cornell entomologists, Drs. Muka and Gyrisco . . . and Penn State agronomist, Dr. Joe McGahen . . . agree that you should definitely add a planter-box treatment. Diazinon and lindane are two chemicals available and cleared.

Both Cornell and Penn State specialists prefer diazinon, particularly where maggots have developed resistance to dieldrin. Lindane is a close cousin and maggots resistant to one can probably survive the other.

Note that treating seed with these chemicals can control seed corn maggot, but will not control corn rootworm and other insects that attack the roots and growing parts of the plant. You'll need far higher rates to control these pests, and should plan to supply this separately.

Most corn seed will come with a tag noting treatment with malathion or other short-lived insecticides. For your purposes, consider these seeds untreated. These are used to control seed-house insects, but have no residual and will give you little or no control in the field.

Fungicides

Most companies will treat their seed corn with a fungicide for protection against seed rots, seedling blights and root rots. Dr. Otto Schultz, Cornell plant pathologist, notes that basic compounds in use include captan, maneb and thiram formulations.

If your seed comes untreated, several are available for planter-box application. These include Dithane M-22 special, a maneb formulation; Arasan 75, containing thiram; and several combinations of captan and maneb.

You'll also find available several compounds combining a fungicide and insecticide. Two that are available as planter box treatments include "Two-Way" and "Ortho-Isotox Seed Treater (D)." Both are combinations of captan and diazinon. Also available is Ortho-Isotox Seed Treater (F), a mix of captan and lindane.

Graphite is included with some of these mixes and helps keep treated seed flowing smoothly in your planter.

For details on what's available in your locale, check with your local dealer or extension agent. Above all, be sure your seed goes into the ground treated.

Last year, we answered trouble calls on a number of fields where farmers had planted untreated seed. Sometimes they got away with it, but more often they were sorry, particularly on early planting, where slow growth permitted diseases and insects to cause severe damage to stands. It's an extra chore at planting time, but it's worthwhile doing if you plan to grow corn!

Treatment for Oats

Mercury compounds, once the most common seed treatments on oats, are now illegal. As a result, you will find oats coming with a variety of other compounds . . . or with no chemical at all. If your oats are not treated, you should apply some in the drill box.

Some seed companies are treating with Manzate 200, or with Dithane M-22 and M-22 Special (maneb), or with captan and maneb mixes. Terracoat (PCNB) is a newly-cleared compound that's finding some use. Also available are compounds containing HCB, the best chemical for smut control. These include "Res-Q," a mix of captan, HCB and maneb . . . and Granox M-N, a maneb-HCB combination.

Dry Beans

Chemicals and clearances for dry beans are similar to corn. Dieldrin is now illegal in New York. Planter-box treatments with lindane or diazinon appear to be the best bet. Here again, the responsibility is yours to treat your seed, because the seedsmen can no longer legally perform this service.

In using these chemicals and in handling treated seed, be careful. These are poisons and can harm you or yours. When you're adding chemical to your seed, use a stick for stirring, not your hands. And if you have some treated seed left over, do **not** feed it to livestock! Above all, do not add it to grain going to market.

If it's only a small amount, your best bet is to plant it or give it to your neighbor for him to plant. If you have a large amount, you may wish to contact your regional representative of the environmental conservation department for advice on disposal.

This seed treatment picture can change rapidly. The information above looks good for this spring. However, it will be a good idea to check with your dealer at delivery time. Find out what is on your seed at that time and what chemicals are available locally to protect your seed from the insects and diseases waiting for it in the soil.

American Agriculturist, April, 1972

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better?

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This Spring, break the old ties. Now's the time to find out for yourself how much more comfortable and productive you'd be at the wheel of a new Case.

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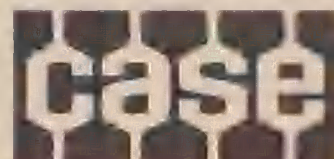
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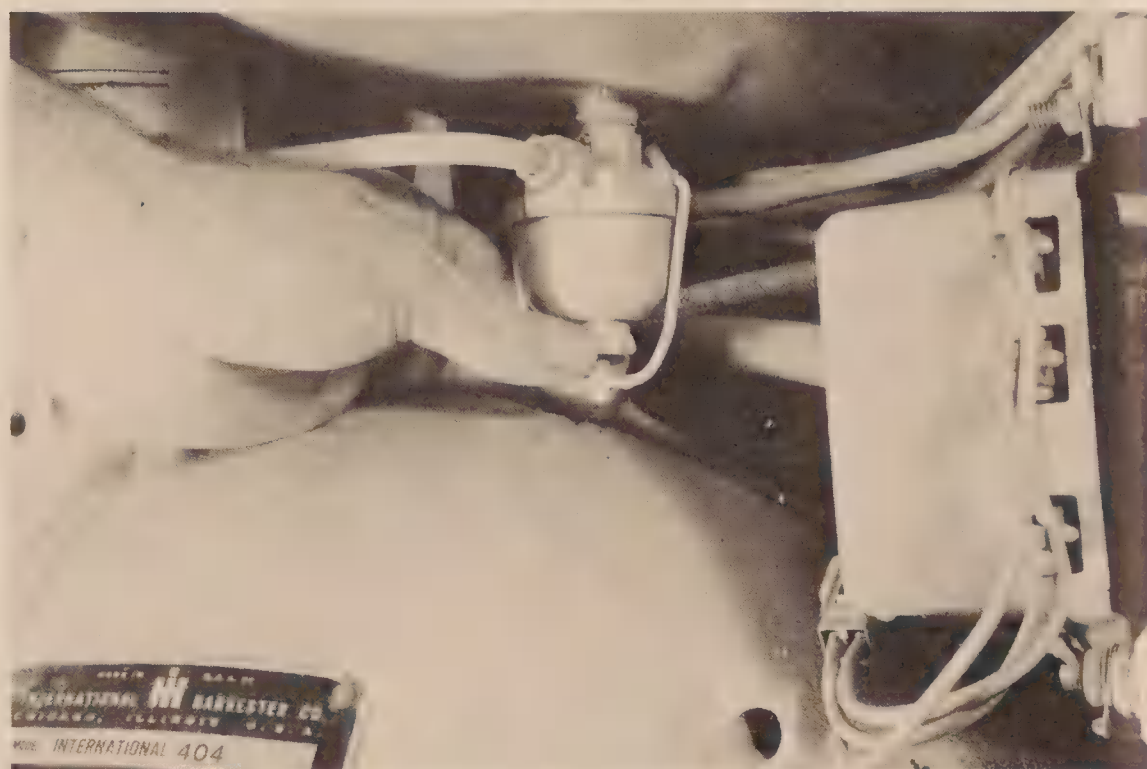
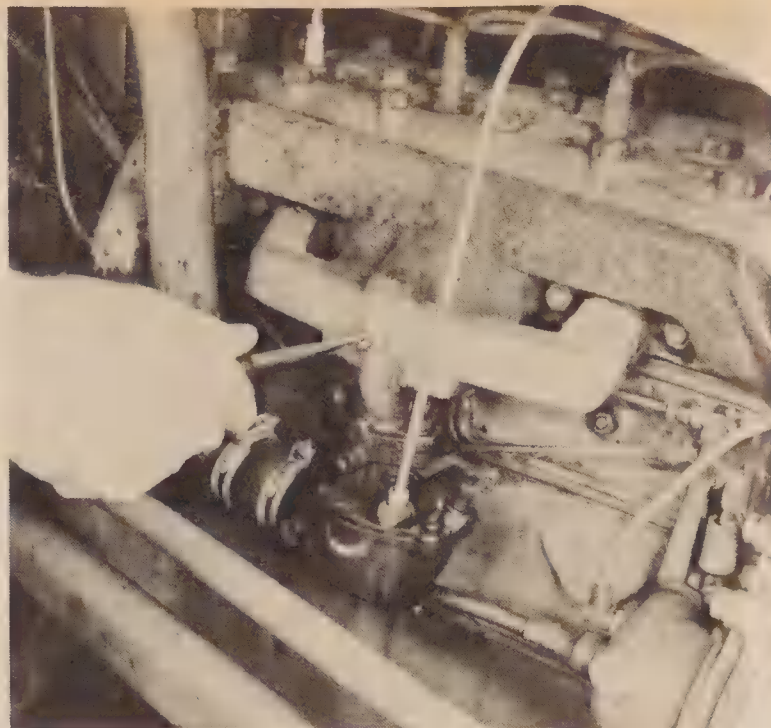
The case of the missing tractor engine

by Wes Thomas

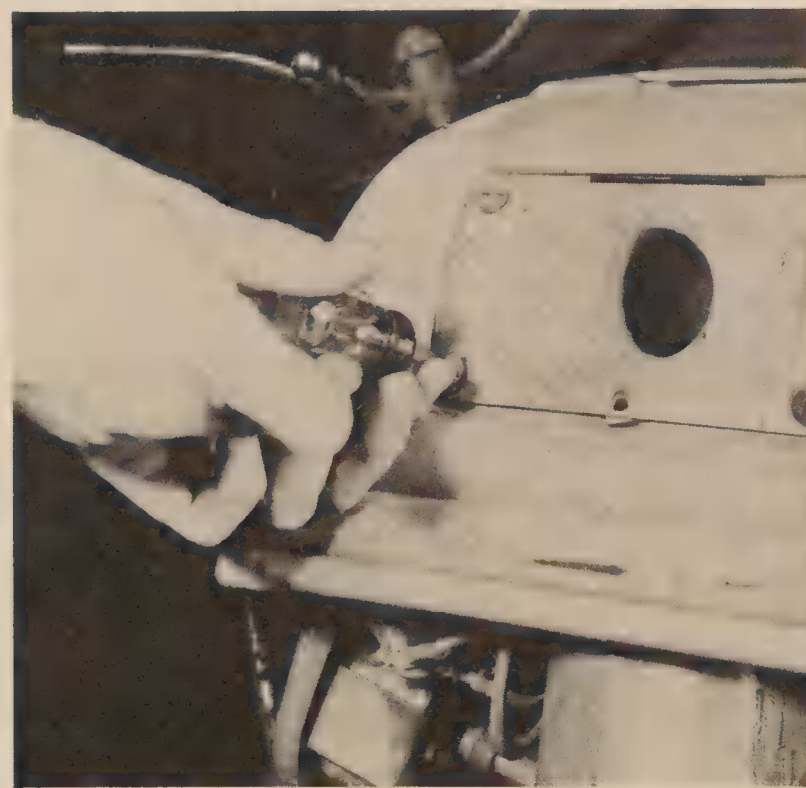
INCREASED fuel consumption and reduced power output are the inevitable results of a tractor engine that is "missing," or misfiring. If the tractor is being used on a particularly urgent job, the misfiring may be accepted in order to get the job done.

But as soon as possible, the cause of the misfiring should be found and corrected. Locating the cause (or causes) may be difficult, but a thorough, careful check of the pictured items will usually reveal the reason.

Intake-manifold leaks in spark-ignition engines permit air to enter and dilute the fuel-air mixture. This dilution reduces power output, and if severe enough, can prevent the fuel charge from igniting at all. Carefully tighten all fittings that could leak air into the manifold.



Sediment bulb and fuel filter must be serviced regularly to dispose of particles that have been removed from the fuel. When removing the sediment bulb be careful not to lose the gasket, and make sure it is in place when the bowl is replaced.



Air-cleaner inlet screen is intended to remove large particles of trash from the air stream. If allowed to accumulate, these particles can choke off the air flow, especially at high engine speed.



Spark plugs must be clean, properly gapped, and in good condition if the current is to jump the gap and produce the spark at the proper time in the engine cycle. To check the spark plugs, remove and inspect for broken porcelain insulators or deposits on the electrodes. On diesel engines, clogged injectors prevent the fuel from being properly atomized for good combustion in the cylinder.



Fuel must be clean. When refueling, be extra careful to avoid getting dirt into the fuel while it's being transferred from the storage tank to the engine fuel tank. A fine-mesh screen in the funnel helps capture any large pieces of dirt.

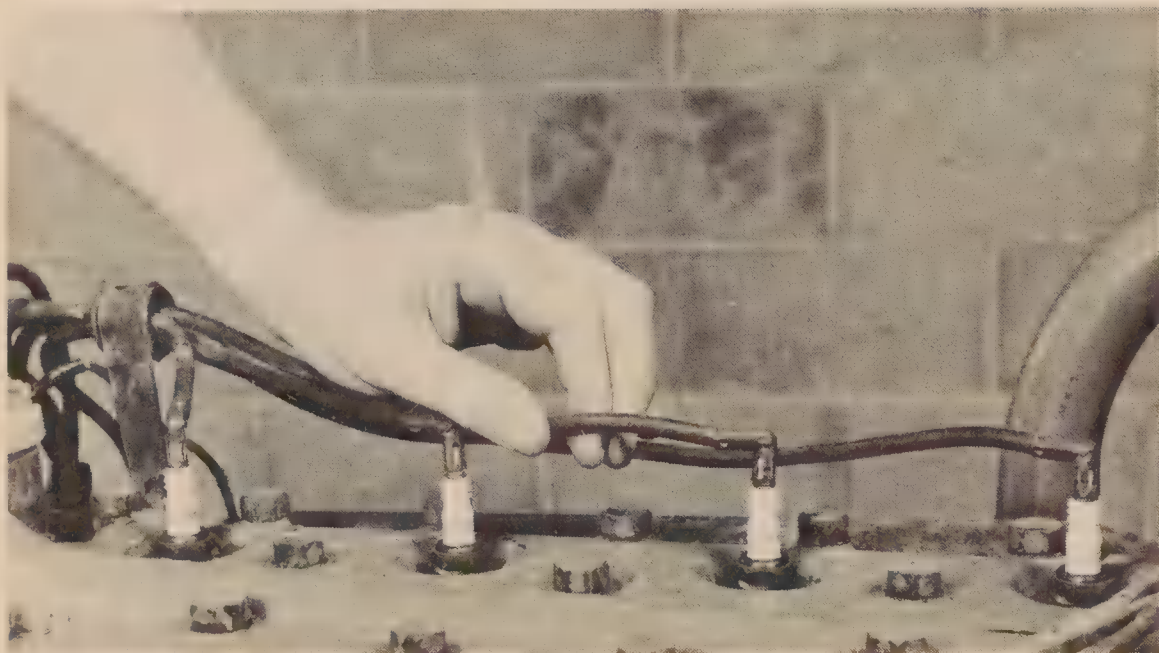
Distributor cap crack offers an escape path for the high-voltage ignition current. In some cases, the crack may fill with oily dirt and dust which makes the crack difficult to see, but allows it to conduct current when damp. This situation can lead to a "difficult to detect" cause for intermittent misfiring.

Ignition coil can fail to work properly at certain engine speeds or operating temperature. Coil testing should be done by service men with necessary equipment. Replacing the coil with a new one is the only practical "test method" for the engine operator.



Spark plug wires must be in good condition to prevent the escape of the spark-producing high-voltage current. If insulation is brittle and cracked from age, current can escape to a metal portion of the engine.

Carburetor adjustment should match the load imposed on the tractor. To provide quicker response to suddenly-increased loads, such as encountered in field use of the power-take-off, the tractor carburetor should be set slightly rich. For a uniform load, it can be adjusted to a leaner, more economical setting.



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For real sure control of nutgrass and fall panicum, the toughest weeds in most cornfields, rely on Sutan plus atrazine to be the best at lowest cost.

Use ½ gallon of Sutan 6-E plus 1¼ pounds of atrazine 80-W on light to medium soils. On heavy or cold soils of New York and New England, use ⅔ gallon of Sutan plus the same amount of atrazine.

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the broadleaves, destroying weeds as they sprout, with no gambling on rain to get results. Surface-applied herbicides often fail without rain.

With Sutan plus atrazine your weed control lasts longer. You knock out early-germinating weeds and also get late-sprouting fall panicum and crabgrass. Yet biodegradable Sutan leaves no soil residue to affect your next crop and the low rate of atrazine reduces hazard to rotation crops.

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Northeast FARM EXPERIENCE



LAND OF OPPORTUNITY

"A LOT of opportunities are hidden behind a lot of hard work" is Herman Zollinger's motto. Zollinger, who farms near Middlebury, Vermont, came to the United States from his native Switzerland in 1953 "with only enough money in my pocket to go home if I didn't like it." He hasn't stopped working since!

"If you think that America has ceased to be a land of opportunity, you're wrong," Zollinger says in a Swiss accent. "When I came to this country, I had almost no money... so I worked and I saved and I worked and I saved until I had enough money to buy this 450-acre farm here in Vermont."

"I never could have made it as a farmer in Europe. There are too many restrictions there. Here, a man is only limited by his own initiative. If a fellow isn't afraid to work, America is still one of the best countries where he can make it financially and have his freedom, too."

Presently, Zollinger milks a mixed herd of 106 cows, 80 percent Holstein and 20 percent Brown Swiss. But the liking for Brown Swiss cattle wasn't the only thing Zollinger brought over to his new country. As a graduate of a two-year agricultural college in Switzerland, he has a great appreciation for the tremendous technical advances being made today in American agriculture.

Zollinger feels that his agricultural education and his staunch depression upbringing have contributed equally to his farming success. "I'm not an extravagant man by nature," he says smiling, seated in his cozy (but unpretentious) kitchen, "but when I see that an agricultural innovation will make me more profits even though it might carry a high price-tag, I don't hesitate to utilize it here."

Such has been Zollinger's thinking about his sealed storage system (three

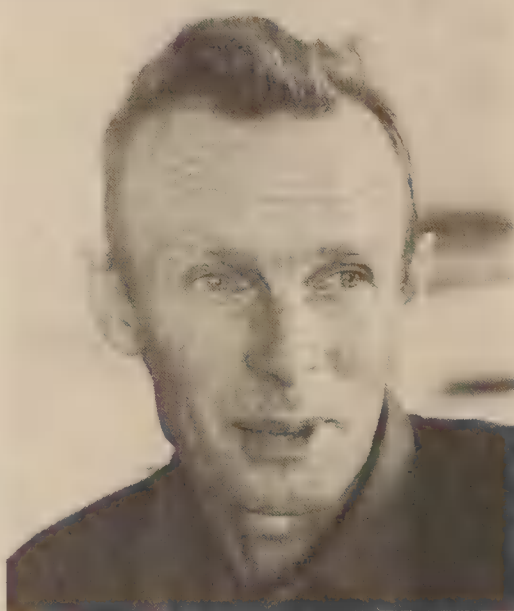
20x60's) for haylage and corn silage.

Four out of five years, according to Zollinger, "You can't make good hay in the beginning of June. But you can make good haylage. In the spring of 1968, I was all done putting up my first crop as haylage, and starting on my second, while a lot of my neighbors hadn't gotten their first crop off for hay. That meant having to feed over-mature hay, no second cut, and buying a lot of protein supplement for them... but not for me."

When Zollinger started his silo-stored feeding system, with automated feeding both in the barn and in the feed bunk, his herd was averaging 12,300 pounds of milk and 460 pounds of butterfat. Today, six years later, that herd has come up to 15,300 pounds of milk and 560 pounds of fat.

Making his production figures even more meaningful is the fact that he figures his income over feed costs on 106 cows at around \$670 per cow. "This means a lot more to me than herd averages," he says.

Herman says he always feeds his cows enough haylage and corn silage so they leave some in the bunk. "My hired man gets upset with me at times," he says, "and one time I listened to him and we fed less. But



H. Zollinger



Haylage and corn silage move to this outdoor feeding area.

within two days, the cows had dropped 300 pounds of milk so now I just keep pouring the feed to them... and they keep producing... right on up to last year's shipping record of 1.5 million pounds."

All Girls

Herman and his wife Gertrude, also a native of Switzerland, have five children, all girls, ranging in age from 3 to 16. "My oldest girl handles all the feeding chores in the summer," Zollinger says, "and there's no way she could do that by herself without a fully-automated feeding setup."

The tall, lanky dairyman is quick to condemn those who don't appreciate America as the great country he thinks it is. "Some Americans don't realize how good they have it. They should go to some of the countries in Europe where a family has to pay from 30 to 50 percent of its net income for food. Here, we only have to spend about 17 percent. Sure, Switzerland and other parts of Europe are beautiful places to visit... but to work there and make a living, no... I'll take America any time!"

In order to help as many Swiss farmers as he can, Zollinger hosts about half a dozen Swiss agricultural students each summer. "They come... sometimes just for a few days, sometimes for the whole summer. They work alongside me, see what one man can do with modern techniques and then go home to try to bring some of our American ideas to their farming."

Hard work never frightened Herman Zollinger. And he's thrived on the challenge of starting from scratch in a new country. One thing he's never lost sight of is that a man can do anything in America if he only has enough initiative!

DARN DEER

Alvin Wells and son David operate a 100-cow dairy farm near Castile (Wyoming County), New York.

Because the acreage is next to Letchworth State Park, the Wells farm has a major problem with deer damage. Dave comments, "The game warden reports counting as many as 500 deer while driving a mile-long stretch of road that goes through the farm."

Alfalfa is the crop suffering most damage. Dave reports, "We're lucky if we can leave down 50 percent of the new seedings we make. Deer paw through the snow for feed the next winter after seeding, and tear it up so bad that it has to be plowed up next spring."

There are 35 acres of fruit trees on this 530-acre farm... and deer are notorious for raking their horns on young fruit trees, as well as nipping the buds. However, this type of damage is overshadowed here by the blows dealt to the "Queen of Forages."

"We've tried most everything you can think of," Dave reports. "We've spread lion scent... and it didn't work. We used an exploder, like the ones used to scare birds, and it works for about two or three days. Deer repellents don't hold them off, either."

"We even built a stretch of fence ten feet high to try to slow down

the inflow of deer from the park to our land, but hunters cut it. Besides, a full-grown deer can jump even that fence if he's scared!"

Game wardens will issue permits to take deer out of season where damage becomes excessive, but this too has its drawbacks. Deer taken under the provisions of these permits must be "caught in the act" at the point of damage. Furthermore, not all neighbors take kindly to having someone shoot deer out of season... even if it's technically legal.

However, the Wells exercise the privileges extended by the permit in order to keep it in force. Unless such permits are used, authorities sometimes are reluctant to issue another.

"Sure," Dave comments, "the severe damage doesn't affect many farmers... but to us it is a real problem. I often wonder why the sportsmen's clubs couldn't help pay for some destroyed seedings... or maybe the State should have a "deer fund" similar to the dog fund. Dog damage to domestic animals is reimbursed from the funds collected for dog licenses... why couldn't deer damage be paid for from money collected for hunting licenses?"

"Maybe sportsmen's clubs... whose members enjoy hunting the deer fed by farmers... could put up feeding stations in the Park that would relieve the pressure on our new seedings. Somehow, it seems to us unfair that we suffer the level of damage we do on behalf of a deer herd benefiting many hunters."

— G.L.C.

SCIENTIST AND FARMER

Andrew Oliver is one of a growing number of part-time farmers. His full-time job is to direct activities at the Southern Cayuga Atmosphere and Planetarium near Poplar Ridge, New York.

Here, he holds classes involving 15,000 students (grades K-12) over the school year from school systems in the surrounding area involving several counties, and even some from nearby community colleges. The teaching facility is a part of the Southern Cayuga Central School campus, but is housed in a separate building... and has highly sophisticated equipment that can simulate the sky at any hour of any day during the year.

Farmer

As for the farming operation that Andy also operates, it has a cropland acreage of 194. Crops include corn, green beans, wheat and alfalfa hay (no livestock).

Some years ago, Andy realized he must either expand the operation or go to off-farm employment for more income. He chose the latter course, and finds that the two jobs complement each other well.

"One job relaxes the tensions and frustration found in the other," he comments. "Farming and teaching science have a lot in common... interest in weather, in the outdoors, etc... and each lends perspective to the other."

There are days, of course, when things get a bit hectic... especially at planting and harvest times. "I

(Continued on page 12)

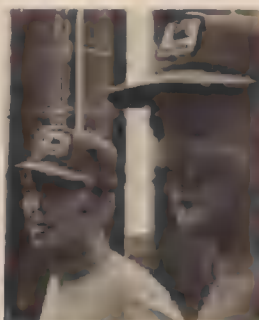
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Montague, Michigan
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it's what you get back
that's important—we've
averaged 15% return on
investment."

Dale & Dave Peterson
Chippewa Falls,
Wisconsin

"We haven't fed any pro-
tein since we built the
first one. That's a saving
of over \$5,000 a year."



LaVerne Schumacher
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"Payments on our last
Harvestore structure, a
2580, are less than we
were paying for protein
a year ago."



Paul Rohrer & Sons
Lancaster,
Pennsylvania

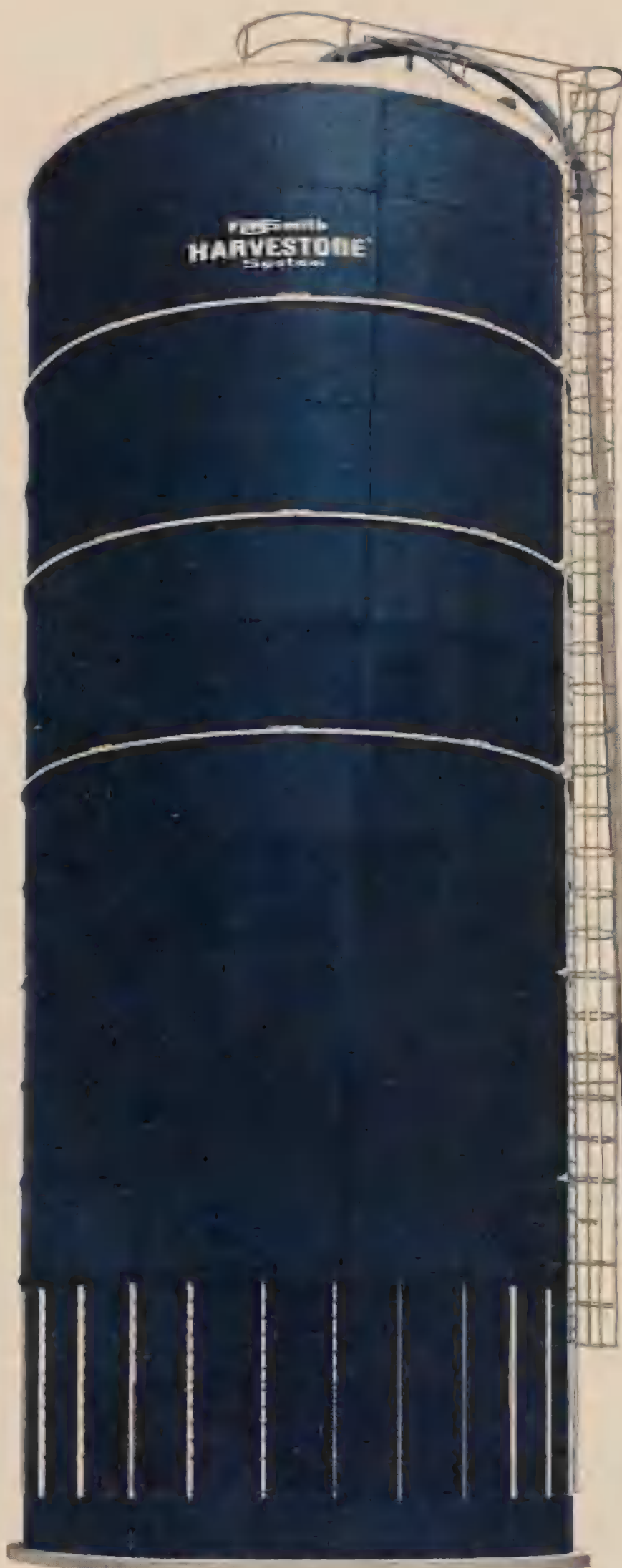
"We have processed feed
every day of the year at
the push of a button. The
boys sure don't miss
grinding."

Merl Niedermeier
Rock City, Illinois

"With high moisture
corn I have been able to
save \$1,500 each year in
just what it used to cost
to get our feed ground."



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a particular farming operation requires the
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limitations of good management, weather
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vidual location.



Wayne L. Salmen
Washington Springs,
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"Spoilage was costing us
31% to 41% of our feed
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Mickey Williams
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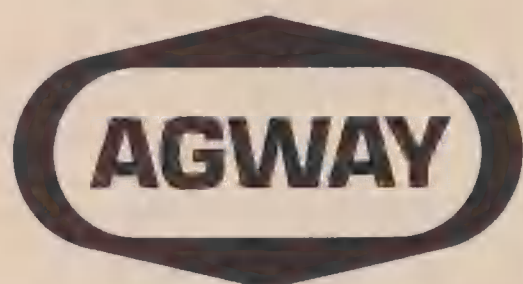
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Oliver

(Continued from page 10)
farm on a two-day week," Andy comments, "and put in 80 to 100 hours a week on both jobs together during the rush times."

Corn has generally been the major crop . . . all early varieties to speed up harvest start. A neighbor does the harvesting in return for having his corn dried by the Oliver equipment. Andy keeps equipment overhead down by owning no combine . . . and by utilizing used equipment.

Time was when part-time farming was considered to be a road for leaving agriculture. But Andy Oliver . . . after 22 years of farming, 17 of which have been part-time . . . is an example of the fact that part-time farming is a satisfying way of life for many people. He combines the fascinating profession of teaching science to youngsters with the fascinating profession of bringing forth food from the earth.

As a scientist in his Planetarium, and as a farmer in his newly-plowed field, he looks upon the earth and finds it good! — G.L.C.

INNOVATIONS

Ralph Bowerman of Macedon, New York, has been doing a number of innovative things over the years . . . and has at times made some modifications in his original plans.

For instance, he's had a free-stall barn for some time . . . long enough to become disenchanted with the gravel-sand-sawdust type of beds in free stalls. He has concreted the beds, and uses unchopped straw for bedding. The idea of indoor-outdoor carpeting intrigues him, but he is waiting to see how other innovators make out before going in that direction.

"If we built again," Ralph comments, "we'd concrete the free stall beds to begin with . . . and we'd build a whole new setup from scratch instead of trying to remodel an existing barn for part of the setup."

Liquid System

Ralph has used a liquid manure system for nearly 10 years, and has found that long straw poses no problem to the type of pump he uses to move the slurry to the spreader. The spreading tank . . . a 1,200-gallon one that was built originally to hold gasoline for an oil company . . . is the second one to be steel-strapped to the chassis. "Keep it simple," Ralph advises. "I prefer a splash plate instead of a spinner. Avoid all the moving parts you can."

The 135 milkers at the Bowerman farm have been on a type of total mixed ration for two years . . . consisting of haylage, corn silage, high moisture shelled corn (HMSC), and a commercial grain mix. Samples of the mixture are sent periodically to Penn State for nutrient analysis. At present, the protein level of the total mix is 18 percent.

Haylage is stored in a 20×50 Harvestore, as is whole-kernel HMSC (ground shelled corn in a concrete-stave silo) . . . corn silage in an assortment of upright silos, and in a horizontal silo measuring 100×40×8 feet. Baled hay is fed to dry cows and heifers, housed at a separate barn, but not to the milking herd. Minerals and salt are available free

choice to all cattle, as well as being components of the commercial grain mix.

Grain Change

Although grain was once fed in the milking parlor, this practice has been discontinued. All grain goes now into the mixed ration, to which the entire milking herd (no grouping) has access in the feed bunk. "If a cow overconditions herself, there's only one place for her anyway," Ralph comments.

The Bowerman family has been farming in the area for 120 years . . . as attested to by the fact that the specific address of the farm is 452 Bowerman Road. What lies in the future for Roger and Gerald, both Ralph's sons who are helping operate the business?

A substantial housing development lies immediately to the north, and land prices are soaring in the area. Farmington township, within which the Bowerman farm is located, has at least two other major housing developments underway. Subdivision or dairy farm . . . only time will tell! — G.L.C.

BASIC MATERIALS

Max Shaul grows 1,200 acres of corn on his own land in the Schoharie Valley near Fultonham, New York . . . and harvests additional acreage from land owned by other farmers in the area.

In 1971, Max shifted away from the use of dry complete fertilizers for corn. He moved instead to the use of basic materials . . . muriate of potash at 250 pounds per acre (150 pounds of potassium) broadcast before plowing, then 150 pounds per acre of granular 13-52-0 applied by the planter, and finally anhydrous ammonia sidedressed when the corn is between six inches and a foot high.

Nitrogen per acre figures out to 225 pounds . . . 250 pounds of anhydrous provides 205 pounds of actual N, and the starter material (13-52-0) another 20 pounds. Thus, the N-P-K formula on corn fertilizer comes out to 225-78-150.

Max figures that shifting to the basic materials saves him \$15 per acre as compared to the previous system of using bagged granular fertilizer. He admits that this would not be true for someone near a bulk-fertilizer blending plant, but Shaul Farms, Inc. is far from such a facility.

A combine equipped with a four-row head harvests corn here . . . operated on two shifts from 7:30 a.m. to midnight on days when weather permits. The harvest period generally encompasses eight weeks.

The planter is also a four-row, and it too is operated in two shifts when planting conditions are right. Earlier varieties of corn are rattled into the ground at plant populations of 24-25,000 per acre; later plantings at 21-22,000.

Max reports an average yield of 125 bushels of dried shelled corn per acre in 1971 . . . down a bit from the 137.5 bushels in 1970. A completely-mechanized grain handling and storage facility, including a continuous-flow drier, handles the crop as it comes from the field. The drier is capable of removing 10 points of moisture from 500 bushels of corn per hour. — G.L.C.

American Agriculturist, April, 1972

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sure even if you plant early and rootworm hatch is late. It's safe to use on all grain and silage corn for dairy or other animals.

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HANDY on the Farm

Hot Stuff — A portable pressure gas stove for use outdoors was made by mounting a gas burner in the center of a car wheel and fitting it with attachment for bottled gas. When traveling, or being stored, the wheel is lifted off the pipes which are the three legs. Rods welded around the wheel rim fit into the tops of the pipe-legs, and the legs themselves slip into stub telescoping pipes welded to a flat metal triangular base.



Protected — Shed posts are set on raised concrete footings into which heavy angle irons have been set when the concrete was poured. The posts are bolted through all sides and are almost completely covered by the iron. This makes a solid footing, prevents rotting, and cattle cannot push the post off its footing.

Big Funnel — A heavy-duty large-capacity funnel was made from the end of a boiler with one pipe opening plugged, and the other fitted with a short pipe. A section of boiler was cut for a handle and welded to the side of the funnel.



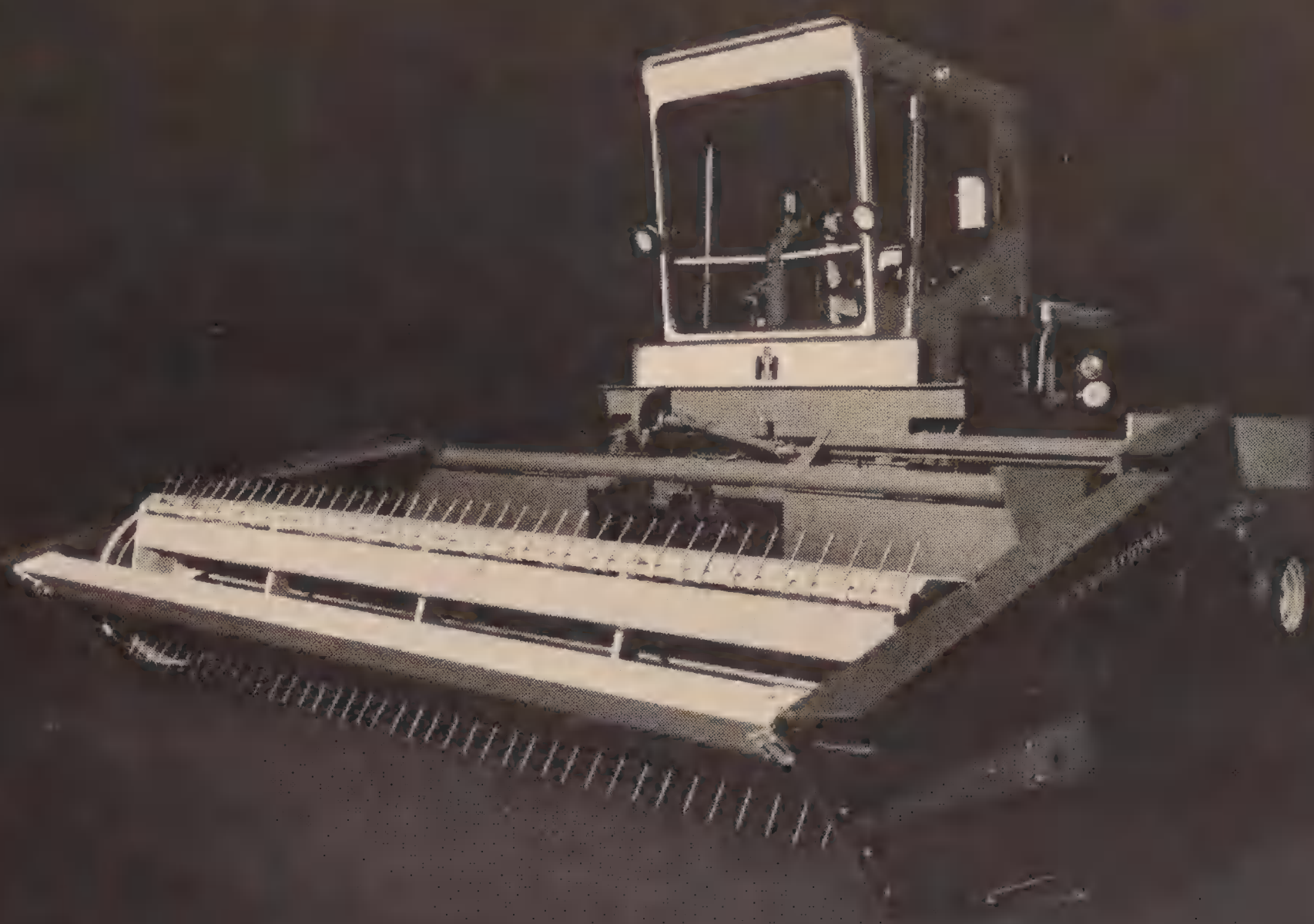
Bar Hitch — A double-ended tow bar made from square pipe and fitted with welded plates to make a clevis hitch on each end is handy for trailing tractor, pickup truck or machinery. The pin... a welded pipe on a bolt... is attached to a short chain so it is always with the bar.



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American Agriculturist, April, 1972



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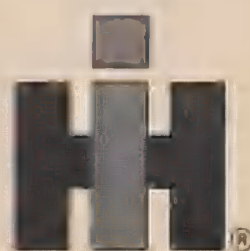
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errant organic...or sinning scientist?

by Win Way*

IF I were an organic gardener, I'd be more interested in philosophical goals and less in strict rules and dogma... some of which seem difficult to follow in view of present knowledge about soils and plant growth.

I can be sympathetic to most of the organic philosophical goals about which I hear and read. But no matter how agreeable I might be, I can never really be accepted because of a few of the rules I commonly break.

Most modern religions find room for sinners and, in some religions, confessions help cleanse the soul. The perfect Catholic, Protestant, Jew (or atheist) doesn't exist, yet these faiths claim errant people as their members.

If organic beliefs are a way of life and akin to religion, then some provision must be provided to encompass all the wayward souls like me or there will never be many true believers.

I want to be an organic believer, really I do, but because I have been trained as an agronomist and possess the practicality displayed by most farmers, I find inner conflicting voices dictating my gardening practices.

So I apply superphosphate to my garden, use minimal chemical control for potato beetles, and put synthetic nitrogen on my lawn. Should that disqualify me from being of the organic persuasion? I think not. I judge my friends on their general honesty, sincerity, integrity, and friendliness... not on their occasional transgressions.

Organic enthusiasts have a lot going for them, especially of late. With all the concern about environment, misuse of resources, pollution by wastes, overuse of pesticides and the enigma of food additives, there are millions of Americans who share the same concerns as organic gardeners. This is not the time to get too sticky over minor points of conflict if more of us are to become organic gardeners.

*Extension Agronomist, University of Vermont

Who can define "natural"? In the context of its use with the word "food," the meaning is completely lost as far as an agronomist is concerned. Most, if not all of our farmland was once covered by trees. Nature recycled all organic matter grown, acids were produced in the upper organic layers of the forest floor, and humus was increased with each passing year.

Clearing the forest canopy, eliminating the annual leaf fall, turning the soil upside down with a plow and planting herbaceous crops were all drastic "unnatural" treatments. But man and his animals had to be fed.

The impact of man on his soil environment has been total; almost no virgin soils are left. We produce our food in an artificial environment and the question seems not to be "will we" or "won't we" but instead, "how artificial do we want to get?"

As a person advocating moderation as the key to a successful life, I think that man in his present situation must compromise by maintaining a course in some area between blind faith in science or becoming a food gatherer again.

Dangerous

We often hear the statement that a little knowledge about a subject is dangerous. This certainly applies to our understanding of the biological world. The great body of knowledge gained since World War II sometimes causes our egotistical selves to assume that all is known. In reality, we just might have uncovered half of what we must eventually know in order to survive in the year 2000, as far as plants are concerned.

Agronomists and other scientists get carried away from time to time in their enthusiasm for a new practice or technology. We've all seen this happen. But it's not entirely the scientist's fault. His discoveries are exaggerated even more in the commercial farming of which we are a part. Farm magazines, and even

extension services, have been guilty of promoting one practice at a time, while being innocently ignorant of all related factors.

We live in a world where one small change in anything is certain to affect something else... that's what ecology is all about. You can't name anything you do to soil, or to a cow, that doesn't have ramifications to the well-being of the whole soil or the whole cow!

Liming

Let's examine some of the things man does to see if they are natural or not. We'll take the most innocent practice first:

No organic gardener would ever be opposed to applications of ground limestone on his soil. Here we have a harmless ground rock product. It is insoluble in water, cannot burn plants or earthworms, and has not been chemically manipulated by man. Yet, in spite of its harmlessness, there is nothing more drastic that can happen to a soil than liming it... short of having it erode away.

Nearly all northeastern soils are acid. They were made that way by the process of podzolization, which, in simple terms, implies an acid-leaching process. Liming an acid soil sets many forms of life into faster motion, including earthworms and bacteria. Stimulated to thrive, their need for food causes them to use organic matter at a faster rate. Any recent additions of plant and animal wastes are also made to decompose faster, releasing nitrates to the environment. We now know that nitrate can be a pollutant in ground water.

Depletion

Liming soils causes depletion of soil organic matter; it increases nitrate loss from soil. The calcium ions in limestone replace potassium and micronutrient ions from soil particles, and with their loss, the soil gets poorer. Remember the old adage, "Lime, lime and nothing more makes the father rich and his

son poor?" Lime's soil-depleting characteristics have long been known.

Some scientists today are concerned with carbon dioxide buildup in the atmosphere from the burning of fossil fuels. Well, you may be surprised to learn that in the process of its action in the soil, limestone (CaCO₃) also gives off carbon dioxide.

The millions of tons of limestone applied each year contribute some carbon dioxide directly to atmospheric pollution while they indirectly cause still more to be released by the accelerated oxidation of soil organic matter. Part of the carbon dioxide may also be leached.

Irony

Isn't it ironic that the action of lime is that of destroying organic matter? This is the very substance organic enthusiasts want to preserve... or do they?

Organic matter benefits soil as no other substance, physically, chemically, and biologically. Adding as much as possible is almost always beneficial. Yet isn't just the accumulation that is so good; it is also the decomposing. A speed-up of organic matter cycling is really what makes crops respond.

Then how about the shock to root systems adapted to an acidity of say pH 5? Changing the soil's overall pH to 7 is a reduction in acidity of 100 times. It's not just the reduced acidity but also changes that happen to soil chemistry. Boron, manganese, iron and zinc could all be reduced to the point of deficiency. In spite of all these bad happenings, liming seems necessary, and organic gardeners accept it.

Acids have a bad image in the minds of organic gardeners. They prefer to have no more applied to the soil than is necessary and then only natural forms. Well, almost all acids are natural in the sense that they either occur in soils or are added in the form of soil residues.

(Continued on page 18)

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Organic

(Continued from page 16)

The principal argument against normal superphosphate revolves around the use of sulphuric acid in its manufacture. I agree that sulphuric acid in sufficient strength is something to be concerned about; my last contact between trousers and car battery reminds me! But other acids in concentrated form can also be toxic and dangerous.

We eat acids in many foods . . . acetic in vinegar, ascorbic and citric in oranges, malic in apples, tartaric in grapes, and benzoic in cranberries. Organic gardeners don't think ill of these. Nor do they worry about the hydrochloric acid produced by the stomach itself.

The Facts

The facts are that properly-made, normal superphosphate has little or no free acid in it. Most high analysis or concentrated phosphates aren't even made with sulphuric acid; they are produced with phosphoric acid. Remember the phosphate sodas you used to buy at the corner drug-store to treat your favorite girl?

Organic matter of any kind, when added to soils in our area, produces acids by fermentation and decomposition . . . including sulphuric, phosphoric, nitric, hydrochloric and many organic acids as well. All organic matter contains sulphur, phosphorus, nitrogen and chlorine, so the end result is unavoidable. Adding onion, leek, cabbage, broccoli and similar vegetable wastes to your garden makes even more sulphuric acid, for they are high in sulphur.

Let's not ignore other natural forms of acid. Carbonic acid is found in rainwater; nitric acid follows the action of lightning and comes down during thunderstorms. Sulphur dioxide, a consequence of pollution from coal and oil combustion, adds significant amounts. So even a good summer rain brings acids that organic gardeners abhor.

Not All Bad

One can't say that acids are all bad. They are in general a most beneficial group of substances without which eating would be pretty dull. One acid that can produce toxicity by precipitating blood calcium is oxalic acid, and we commonly eat it in spinach, several other garden greens, and rhubarb.

To make a judgment against superphosphates, the acid salts of sulphuric and phosphoric acids, while at the same time ingesting foods made with baking powder . . . such as old-fashioned baking powder biscuits and pancakes . . . is not being very consistent.

Some brands of baking powder actually contain dicalcium phosphate in the same percentage as superphosphate, which is used at rates the equivalent of 500 to 1000 pounds per acre. This is the amount often used in gardening.

This inconsistency can be avoided by using yeast for leavening, or choosing a tartaric acid-bicarbonate of soda baking powder. Aluminum sulphate (alum) baking powders may also be judged unworthy of human consumption by those who object to superphosphate.

And what about the fluorine situation? (Continued on next page)

uation? Lack of this important element in soils, and in the food grown on them, results in softer teeth.

To correct this situation, many municipalities now add fluorine to the water supply as it is being chlorinated. Most organic enthusiasts recoil at the thought of what they consider a poisonous adulterant, even though tooth decay is reduced. Yet they cheerfully use ground rock phosphate containing fluorine without even asking if it has been de-fluorinated.

I'm bothered by the inconsistency of thought and action on the part of well-meaning, organically-minded persons. I like to pick a philosophy and stick with it. All of these and other inconsistent practices disenchant me completely. I have never learned why some substances are judged "bad" and others "good." Perhaps it's because the word "organic" is not connotative enough.

Urea

Urea is an organic substance by any definition I've seen, whether made with ammonia and carbon dioxide or found in animal urine. Yet, urea is judged bad and the urine good. Perhaps the method of creation is the key. Urine is as natural as anything can be, while bagged urea prills are obviously synthetic. Chemically, both sources are identical; in soil they behave in like manner.

So what makes "natural" any better? Here seems to be one very important key to the organic philosophy, whether it applies to food, soil, plants or resources.

"Everything in moderation," that's what grandfather said. The advice is as appropriate to growing plants as it is to people. Balanced nutrition is the key to successful plant growth. This is an area where both organic culturists and science have much to learn.

Imbalance

It is not enough to see that a plant has nitrogen, because adequate sulphur has to be present, too. Too much calcium, or potassium, disrupts the soil's chemical balance. An excess of copper interferes with zinc metabolism and too much nitrate at one time seems to affect most everything.

In spite of the progress made in soil testing and tissue analyses, the business of insuring adequate and balanced nutrition at all times is not easy. Just adding fertilizer is not the answer either, and everyone should know that organic matter helps. It provides a buffering action against excesses of nutrients while at the same time providing a complete array of them. After all, organic residues, both animal and plants, come from previously existing plants; without proper nutrition they wouldn't have produced it.

To hear some organic gardeners talk, you would think that recycling organic matter could achieve a sort of perpetual motion scheme in the garden. This is simply not so. Our greediness to grow plants in unsuited soils, inhospitable climates and during adverse times of the year makes it necessary to add plant nutrients in other forms to make sure our crops are well fed.

As already discussed, northeastern
(Continued on page 24)

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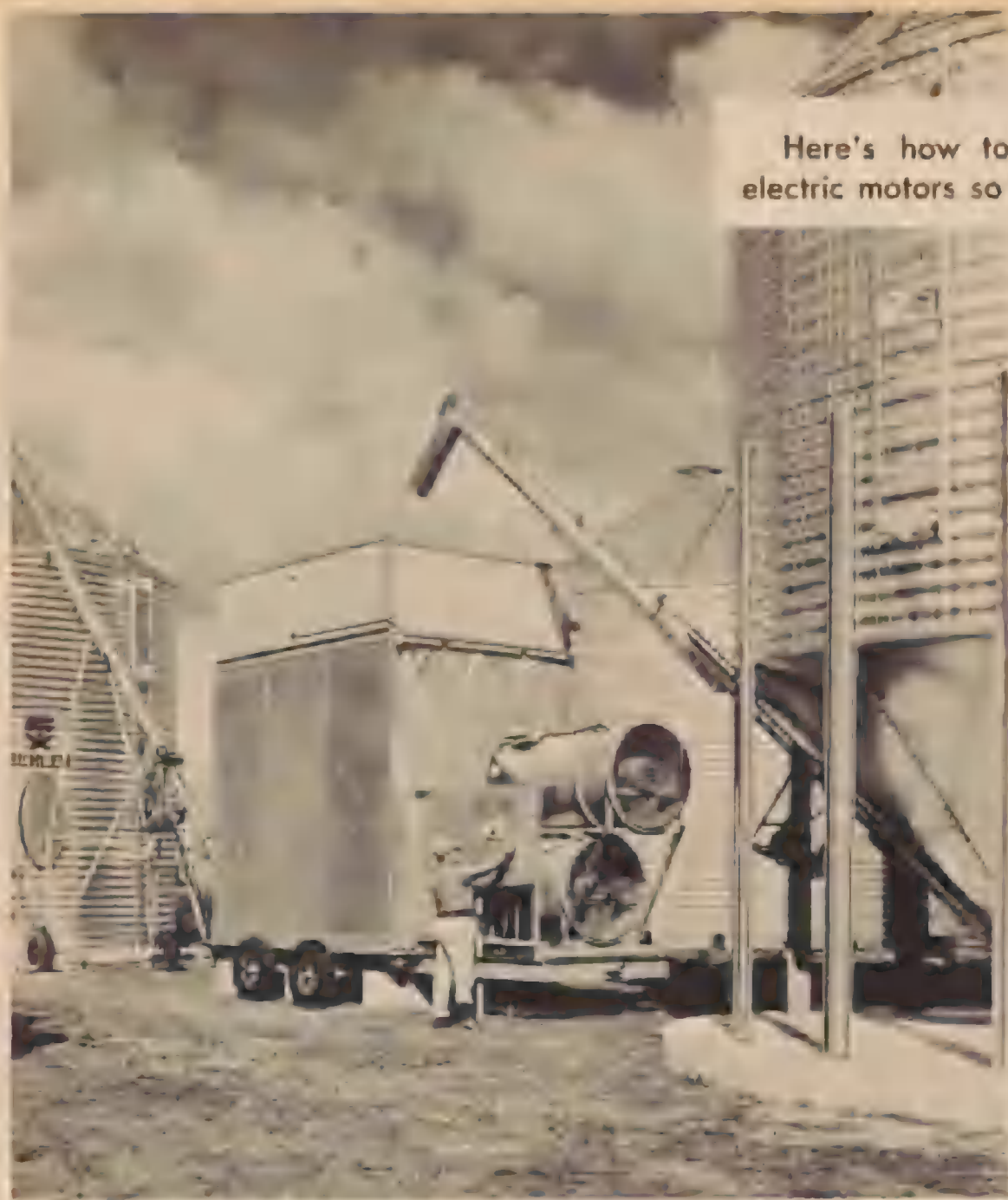
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Here's how to select and maintain those electric motors so important to every farm . . .



by Wes Thomas

power for the people

ELECTRIC motors have been one of the great contributors to increasing the standard of living of the average farm family during the last forty years. Nowadays, electric motors are often taken for granted, and their application is considered routine. However, they vary in cost, efficiency, and the type of job that they will do best.

All alternating-current motors can be divided into five types:

1. Shaded-pole
2. Split-phase
3. Capacitor
4. Repulsion-induction
5. Universal

The first three types of motors all have similar running characteristics. The differences are in the methods of starting, or getting the motor up to rated speed.

Shaded-pole . . . This motor is built only in small sizes (from 1/500 to 1/4 hp). It starts as a repulsion motor, but when up to speed it functions as a single-phase motor. Because of its simple construction, it is usually the lowest-priced induction motor, and has low maintenance requirements. However, it also has a very low efficiency, and a starting torque only 40 percent of full-load torque.

Split-phase . . . This type has the lowest first cost. Size ranges up to one-half horsepower. The most common speed is 1750 rpm. However, they are available in speeds of 860, 1140, and 3450 rpm. They can be operated at 115 or 230 volts, but must be purchased for the desired voltage.

These motors have high current requirements for starting, which often causes lights to dim, or fuses to blow, unless special precautions are taken. Therefore, their use is generally limited to fans, furnace blowers, shop tools, or similar easy-starting loads.

A split-phase motor is usually reversible by interchanging the wires to the starting windings.

Most Popular

Capacitor . . . This is probably the most popular type for farm applications. Most motors of this type have a round can or capacitor attached to the case. However, the newest types have the capacitor built into the inside of the case, or into the base plate. They have lower starting current requirements than the split-phase type, but develop good starting torque. They are a higher-priced motor than the split-phase.

The capacitor motor is usually built to operate at 1725 rpm, but can be obtained in a variety of speeds. This type of motor can be connected to either 115 or 230 volts, simply by correct hook-up of the terminals as shown on the nameplate. The direction of rotation can be reversed by interchanging the wires to the starting winding or the running winding.

Because of their starting characteristics, they can be used on all but the most difficult starting loads. Typical applications include hammer mills, grain elevators, small air compressors, and hay dryers.

A type of capacitor motor of fairly recent origin is the "soft-start" motor of up to 50 horsepower that draws only 2.5 to 3 times the current to start as it does to operate . . . as compared to the 5 to 6 times required by most single-phase motors.

Because of the low starting current-draw, a soft-start motor is designed for operating loads that can be started at no-load (or partial load), such as forage blowers, irrigation pumps and dryer fans. Acceleration time is a few seconds longer than with other motors, but it operates as a standard capacitor-type, single-phase motor at its full rated speed.

Rugged

Repulsion-induction . . . This motor can be recognized by its brushes and commutator, similar to those on a tractor starter or generator. It is the highest priced of the three types of motors, but it is also the most rugged. It will start extremely heavy loads with very low current demands. These motors can be wired to use either 115 or 230 volts. Speed is usually 1725 rpm, but the other usual speeds are available.

The direction of rotation is reversed by a slight rotation of the plate to which the brushes are attached. The brushes in this motor must be checked and cleaned occasionally, and at very infrequent intervals it may be necessary for an experienced repairman to "turn down" the commutator in a lathe. If this is not done, the commutator may arc excessively and create a fire hazard.

This type of motor is seldom sold anymore . . . and then only in 5 and 7 horsepower sizes.

AC or DC

Universal motors . . . These motors, which range in size up to one horsepower, are usually purchased as a built-in part of a household appliance. They are called universal because they will operate either on alternating or direct current. These motors have high starting torques, but they also have high starting currents.

The speed of these motors depends solely upon the load imposed. This point is well worth remembering when attempting to salvage one of these motors for use in a home workshop project. **If run with absolutely no load, these motors keep increas-**

ing in speed, and centrifugal force will actually cause them to fly apart!

Other Pointers

Here are some other points to keep in mind when selecting an electric motor:

1. If you have several part-time jobs for a motor, you may be able to arrange a portable motor, thus reducing the number of motors necessary. If selecting one motor for several jobs, be sure to select one large enough for the heaviest job.

2. It is possible to purchase motors with cases that are dust-proof and drip-proof, if your intended use requires such features.

3. If you intend to use a motor of 3 or more horsepower, check with the electric company as to the wiring that will be required. Time was when really sizable electric motors needed three-phase power, but "soft-start" motors of up to 50 horsepower can now be operated on single phase. There are at least three manufacturers of such motors. For instance, General Electric has developed a "Clydesdale" motor series having such capability.

4. Be sure to select a motor that is large enough for the job. An electric motor will take a heavy overload for a short period, but a continued overload will burn out the motor.

Many motors have overload protectors built into them that will shut off the current if the flow becomes too great, or the motor overheats. If the motor that you're considering is not so equipped, special time-delay fuses . . . or motor-rated circuit breakers . . . are available for motor protection. They are outwardly similar to a regular screw-in fuse or breaker. However, the fuse is so constructed that it will stand an overload for a short time (when the motor is starting), but will burn out like a regular fuse if overloaded continuously. The motor-rated circuit breaker will also take a brief overload, then switch off the power supply to the motor.

The data given on the motor nameplate are the best source of information on motor type, voltage current requirements, and speed of operation. They are an important guide in the selection of the proper motor.

Maintenance

Usually, electric motors cause so little trouble that they are liable to be neglected entirely. However, systematic care and proper protection can greatly increase the useful life of your motors. Here are some suggestions for good motor care:

1. **Provide adequate-size wiring.** It will pay to obtain the service of an experienced electrician or power company farm representative when adding a new motor to the farmstead. If the wire size is too small, excessive voltage drop occurs when the motor is operated. Then, the current flow increases, which in turn causes heating in the wiring and the motor. If the current consumption doubles, the heating increases four times.

2. **Reduce other causes of overheating.** This includes selecting the right type of motor for the job, eliminating unnecessary friction in

(Continued on next page)

American Agriculturist, April, 1972

the driven machine by aligning parts correctly, and not attempting to use a motor that has too little capacity for the job. Provide adequate ventilation for the motor.

3. **Provide adequate overload protection** (as previously mentioned).

4. **Protect your motor against moisture, dust and dirt.** Most motors use some sort of switching device to change the current flow after the motor is up to speed. Dust will hamper the operation of this switch which in turn can cause the motor to burn out.

Dust and dirt are just as harmful to motor bearings as they are to bearings on any machine. They can also combine with moisture or oil to form gummy deposits on the insulation of motors. This will cause early break-down of the insulation and a burned-out motor.

Even sealed motors will last longer if given some additional protection . . . like a piece of metal roofing over an exposed motor outdoors, for instance.

5. **Provide special care for motors used seasonally.** Motors used seasonally, and then allowed to remain idle for long periods, need extra attention. Otherwise, the storage period may be more harmful than the use period. Store these motors in a clean, dry place. Before storing, wipe off all dust, dirt, grease, and oil. Use compressed air or a tire pump to blow out dry dust. Check and relubricate according to the manufacturer's recommendations.

6. **Lubricate regularly and properly.** A motor equipped with sleeve-type bearings generally needs lubrication about two or three times a year. A ball-bearing-equipped motor needs lubrication only once every two or three years, in average service.

Spring or early summer is the best time to lubricate, as the old grease is softest then and can be readily forced out by the new grease. Do not overlubricate . . . this is as harmful as insufficient grease. It's a good idea to tag each motor and record the date of each greasing.

7. **Screen all motors against rodents and birds.** All openings large enough to admit rodents or birds should be screened with 1/4-inch mesh screen. Motors are not generally supplied with screens, because the motor manufacturer has no way of knowing for what particular application his motor will be used.

Screens in kit form are available for some makes of motors. If a motor is purchased as part of another farm machine, it will generally be screened. However, it's wise to check this item when shopping for equipment.

Some farmers prefer to do their own wiring. If you have the know-how and the necessary tools, you can save a considerable portion of the cost in installation. However, be sure that you conform to the national electrical code, the recommendations of your power company, and those of the equipment manufacturer. It will generally pay to have a competent electrician or inspector approve your circuits and materials. Be sure you know what you are doing, and then do the job properly. Shortcuts generally prove to be very expensive in the long run.



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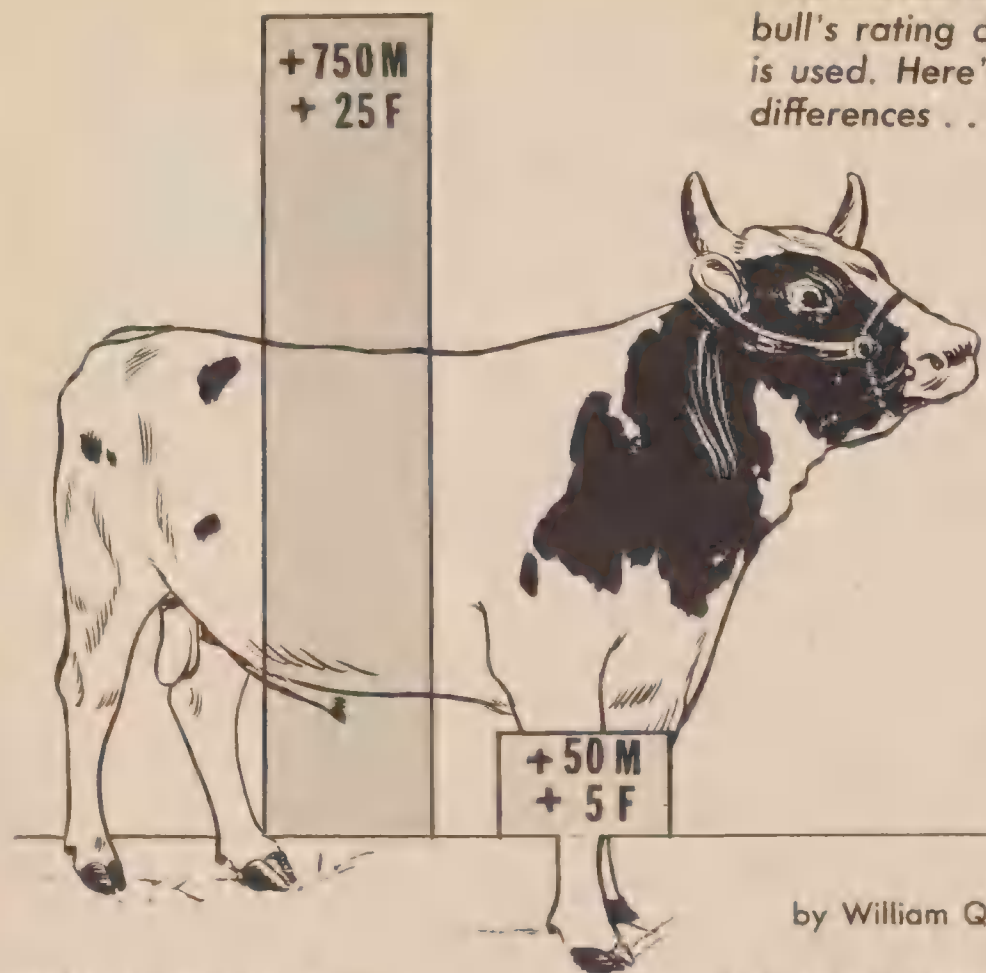
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Sire evaluation methods vary, and a bull's rating depends on which method is used. Here's an analysis of the differences . . .



by William Quinn*

TOP BULL - OR JUST ANOTHER SCRUB?

THE French have a phrase, "Vive la difference!" They know exactly what it means.

Northeastern dairymen also have a phrase, "predicted difference." Unlike the French, however, they're not always sure just what it amounts to.

The confusion is certainly understandable. In fact, the typical dairyman has cause to wonder if a lot of other people aren't in the same boat.

Definition

"Predicted difference" is a term used in proofs of sires used in artificial insemination. It's a numerical prediction used to express an estimate of a sire's transmitting ability . . . an electronically-computed scientific evaluation. Supposedly, it's the best estimate of how a large number of a sire's future daughters will compare with the daughters of other sires that would be milking in the same herd at the same time.

If this is true, then this estimate . . . this predicted difference . . . should mean the same thing to everyone in the dairy industry.

But does it?

Not exactly!

Because different methods are being used by different people to calculate a predicted difference for the same sire.

For example, a recent issue of a national dairy magazine listed the predicted differences of four Holstein sires active in AI as they were reported in the May, 1971 USDA Sire Summary:

Yet a Northeast AI Sire comparison report issued just one month later (June, 1971) by the Department of Animal Science at Cornell University listed quite different evaluations of the same four bulls:

Sire	Predicted Differences
Orlo	+900M +38F
Astronaut	+800M +28F
Centurion	+350M -20F
Maple	-350M - 0F

Why the difference? Why do two reports give different evaluations of the same sires . . . a variation, in fact, running anywhere from 50 pounds of milk for one of the bulls up to more than 1100 pounds for another?

Reasons

The reasons are several. The most basic one is that **a different comparison method is being employed.**

To understand these differences, and the reasons behind them, perhaps it's best to back up and look at the background of the techniques employed in today's sire rating systems.

Pioneers in artificial insemination work early realized the great potential for herd improvement they had in their hands. They recognized that a bull used in AI might sire 25,000 offspring in a single year, perhaps 100,000 or more in its lifetime. A sire's potential . . . for good or for bad . . . is tremendous!

So they decided that some kind of progeny test to measure the genetic worth of a sire was manda-

with their dams. Often, the daughters were located in a single herd or perhaps in two or three at the most.

The production records of both dam and daughter were corrected for age, length of lactation and milkings per day before the comparison was made. This kind of progeny test was frequently referred to as a Natural Service Proof . . . although this wasn't always completely accurate because some of the offspring may have resulted from artificial insemination.

Bias Possible

The population of many of our early AI studs was made up of these "naturally-proved" sires. Sire buyers scoured the country hunting bulls with "high proofs." Unfortunately, as many AI organizations soon learned, it was possible to "stack the deck." Sometimes intentionally, sometimes unintentionally, this kind of proof was biased because of special care of the daughters.

So the AI men reasoned, "Why not eliminate this bias by 'testing' the sire . . . using him in a great number of herds, and checking how well his daughters do in comparison with other animals milking in those same herds? This would remove any chances of manipulation by vested interests."

Then some additional refinements were built into the comparison to take care of differences in opportunity. For example, cows differ in their production due to season of freshening. Fall-freshening cows produce more milk than those that freshen in the spring . . . perhaps anywhere from 500 to 1500 pounds more . . . even on the same farm. And because of differences in the quality of their forage, weather conditions or other environmental factors, cows also produce more in some years than they do in others.

Direct Comparison

Now this kind of feeding and management information can't be given an exact numerical value. So the animal scientists figured . . . why not correct for these differences by making comparisons only between the production of animals that had the **same opportunity?** That is, cows that freshened during the same season of the year, stood in the same barn, ate feed from the same source and were milked similarly.

But for some reason . . . perhaps because of differences in popularity . . . or maybe just by chance, certain bulls tended to be used in herds with higher or lower production than the average of the breed. So an additional adjustment was made to take into account the degree to which the production varied from breed average. Adjustments were also made based on the number of daughters of the sire. This totally-adjusted comparison is what has come to be called a "predicted difference."

This evaluation technique, pioneered by a team of scientists led

by a brilliant Cornell geneticist and statistician, Dr. C. R. Henderson, was often referred to as "AI proving." Rather than being a dam-daughter comparison, as were most of the early "proofs," this evaluation was a daughter-herdmate comparison. Paternal herdmates were excluded from the comparison.

Of course, the more tested daughters a sire had, the more reliable became this estimate of his transmitting ability. Twenty daughters were considered about the minimum that could be used to establish the estimate. And it took about 100 tested daughters before a sire's predicted difference would "stabilize."

So in order to help dairymen in choosing which sires they wished to use, an additional figure, called **repeatability** was included. This was a measure of the **reliability** of the predicted differences shown for the sire. It took into account the number of daughters, the number of records per daughter and the number of herds where the daughters were located. The higher the repeatability figure, the more likely that the predicted difference reflected the true production level of future daughters.

This program of sire evaluation, developed and carried out in New York State, was adopted in essentially the same form by the USDA Dairy Records Center . . . with three differences. USDA included **all** daughters in the comparison, not just AI daughters. In addition, the USDA report was based on daughters from **every section of the country**, whereas the New York comparison included only northeastern animals whose records were processed in the New York Dairy Records Center. And because USDA comparisons were country-wide, slightly different seasonal adjustment factors were employed.

Updated

However, in 1970, Cornell animal scientists developed a new sire evaluation program which they believe is not only simpler, but provides a more accurate measure of a sire's true genetic worth. Their new evaluation technique was designed to eliminate certain of the biases which they felt still existed in the herdmate comparison method they had previously employed.

They reasoned that some of the assumptions on which a herdmate comparison is based are no longer valid. One of those assumptions is that bulls are used within a herd on a random basis. In practice, this is no longer true. Some bulls just don't have the competition that others do. Daughters of some bulls have distinctly better herdmates than others . . . so these bulls are playing in a tougher league.

Nor are herdmates the same from year to year. In fact, they're getting better all the time . . . about 50 pounds of milk per year better. So younger bulls have a tougher row to hoe than do older ones. The daughters of younger bulls are competing against better herdmates, which makes older bulls end up looking better than they really are. Animal scientists call this principle "genetic trend." They define it as the average yearly increase in the

(Continued on page 26)

Sire's Name	Stud	Predicted Differences
Airytop Sir Seeley Pabst Orlo	Eastern AI Coop.	+ 851M + 32F
Paclamar Astronaut	Curtis Br'dg. Service	+ 129M + 43F
Forest Lee Centurion Rocket	Amer. Breeders Service	+ 824M -1F
Dee Ann Rag Apple Maple	Carnation Breeders Serv.	+763M + 31F

* Cooperative Extension Agent, Onondaga County, New York.

tory. The first tests, called "proofs," compared the daughters of a sire

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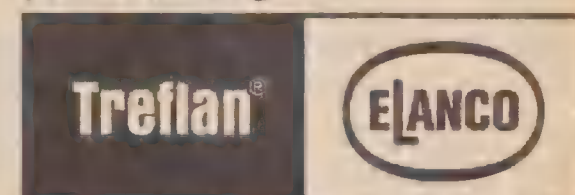


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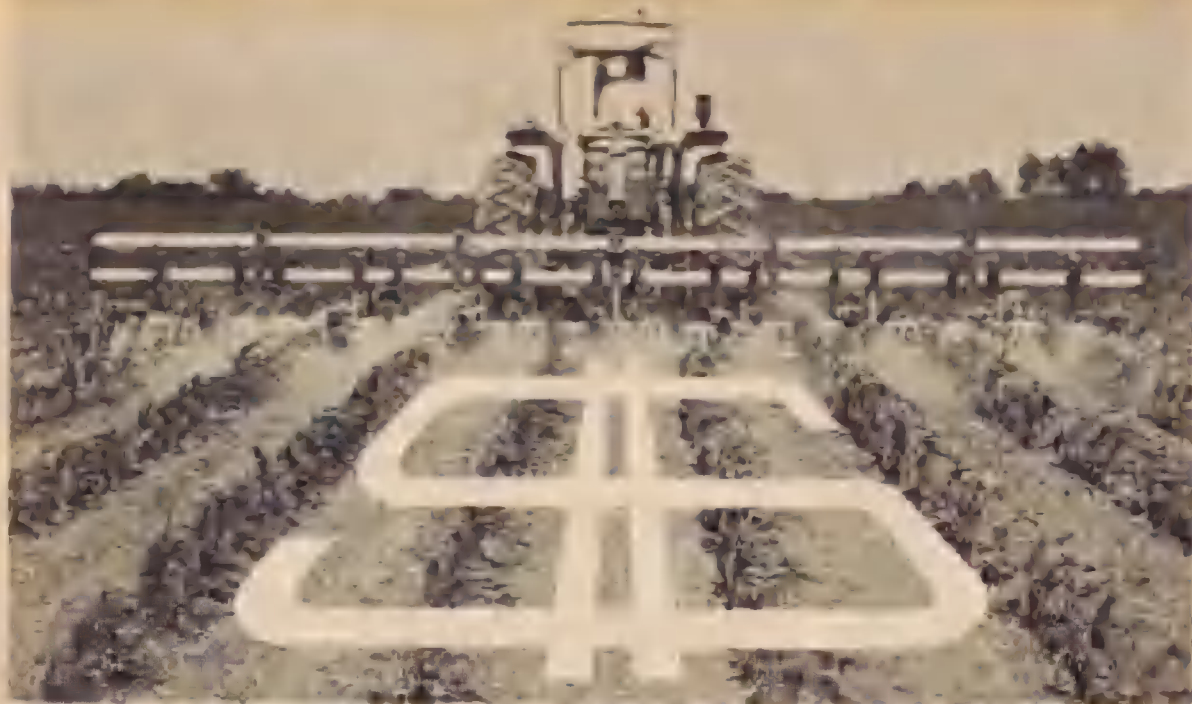
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Organic

(Continued from page 19)

soils get acid and no amount of organic matter can correct the situation. In fact, organic matter makes the soil more acid. Then, too, every single garden and farm crop we grow comes from some other part of the world and usually from areas of higher fertility.

We expect crops to start early in the spring, before bacteria warm up to get organic matter decomposing. The same is true in fall. The phosphorus content of all untreated soils in our area is low at the start and without outside sources, our gardens would grow poorly. No amount of organic matter can rectify phosphorus deficiency, since all organic matter is relatively low in phosphorus and has larger proportions of nitrogen and potash.

Furthermore, the aluminum content of our soils is so high that it ties up phosphorus in forms unavailable to plants and in some cases the aluminum is toxic to plants themselves. Rock phosphate gets tied up, too.

Not Enough

Organic matter alone is not enough, but then neither is commercial fertilizer. Even a so-called "complete" fertilizer refers only to three major nutrients (nitrogen, phosphorus, potassium); organic matter also contains all the micro-nutrients. Producing plants under our often difficult conditions requires both fertilizer and organic matter.

The greater the number of materials used to supply nutrients the better, for it helps insure the greatest assortment of micronutrients. Many natural materials are hard to come by now that we use so many animal wastes for food. Vegetable wastes are valuable, but not as concentrated as animal wastes and, therefore, less potent as fertilizer.

Gardening is becoming a popular pastime. It serves as recreation for some, diversion for others, and an important supplement to the diet of all who engage in it. The philosophy of recycling wastes, stimulating microorganisms, severely limiting the use of pesticides and creating minimum demands on resources and environment is great and should be promoted. Let's all garden as naturally as we can in our very unnatural world!



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FORD TRACTOR



Top bull

(Continued from page 22)

genetic ability of dairy cows.

One of the famous AI sires of the 50's and 60's, Sir Bess Ormsby Fobes Dean, can be used to illustrate the influence of this improvement in herd mates. In 1968, Dean's "proof," based upon 11,560 records on 4966 daughters, showed a plus 662 pounds of milk over herd mates. Yet his genetic superiority by that time was estimated to be down to minus 248 pounds of milk.

A look at the production of his two-year-old daughters supports this premise. In 1955, Dean had 494 tested two-year-old daughters that showed a plus 484 pounds of milk over herd mates. Eight years later, in 1963, Dean sired 345 two-year-

old daughters that averaged only plus 98 pounds over herd mates.

Had Dean's production potential changed? No . . . but that of his daughters' herd mates had! Dean had bumped up against genetic trend. For the very same reason, it wouldn't be very good business to buy up the semen of one of today's outstanding sires and freeze it for sale twenty years hence!

According to Cornell scientists, another bias occurs due to differential culling among herd mates. Some bulls have more daughters culled for low production than others. This changes the odds in favor of those bulls whose daughters are more heavily culled, because the daughters that remain make up a better-than-average sample.

These were the reasons why Cornell animal scientists thought a new evaluation system was necessary. How does their new program compare with the old herd mate comparison system? To begin with, the new Cornell sire evaluation technique uses a **direct-comparison method**.

Instead of comparing one sire's daughter against her herd mates, it compares her **directly** against the daughters of another sire in the same herd. Indirect comparisons are also utilized. Where two sires do not have daughters in the same herd, they may be compared with another bull as a bench mark for ranking them with each other.

This Cornell direct-comparison method utilizes only contemporary

daughters of the sires, rather than all daughters. In other words, first-lactation records of the daughters of one sire are compared directly with the first-lactation records of the daughters of another that freshens in the same herd in the same season of the year. In addition, all non-AI daughters, as well as any daughters in the herd of the owner or breeder of an AI sire, are also eliminated from the comparison.

The new Northeast direct comparison, like the older NE herd mate comparison, still uses only daughters tested in New York and New England herds. If there are regional differences in the genetic makeup of our national dairy herd . . . and there may very well be, although no one has yet tried to prove it one way or another . . . then a regionally-based evaluation system should be more accurate than a national one.

There's one other minor difference between the USDA and the Northeast Sire Summary calculations which accounts for some of the variation in the "predicted difference" each lists for the same sire. This difference is perhaps best understood by statisticians, or others of like mind. It's that the "zero point," or base for comparison, is different.

In the statistical computations involved in determining herd mate comparisons, the evaluation of a sire can change . . . depending upon which sires are included in the comparison. For example, daughters of that great Ayrshire sire, Betty, dead now for more than two years, carry considerable statistical weight in determining herd mate production levels against which dams of Ayrshire sires are now compared. Direct comparison eliminates this problem.

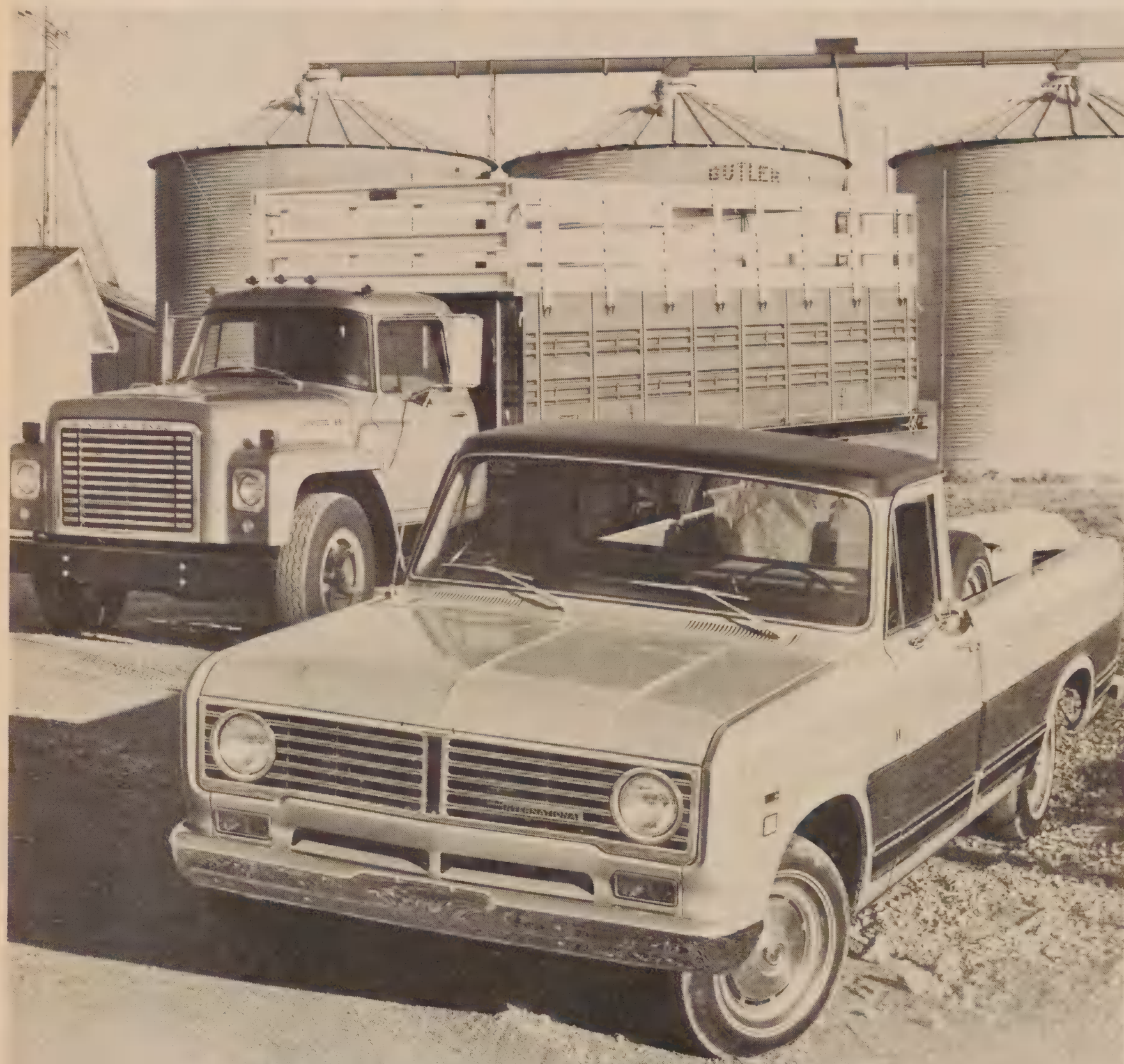
While we've enumerated several items accounting for a variation between the two reports, most of the difference, according to the Cornell scientists, is because of the **difference in competition** each bull faced. This is the main reason why **Orlo, Astro-naut, Centurion** and **Maple** all show two different "predicted differences" on the two reports. Orlo's daughters, their studies show, were compared against daughters of better bulls than were the daughters of Maple. So, if a credit for this difference in competition is included, it would change each bull's evaluation and rank.

Last year, the Dartmouth College football team won nine and lost one. The New York Giants pro eleven won four and lost nine. No offense intended . . . but, even though their record is better, the Dartmouth Indians hadn't better get on the same field with the New York Giants! The Giants are definitely better. Their poorer won-lost record is simply because they faced tougher competition; the same principle holds in comparing bulls.

Available

Sire evaluations . . . one based on the Cornell direct-comparison method, and the other on the herd-mate-comparison method . . . are both available to northeastern dairy-men. The Department of Animal Science at Cornell, in cooperation with Extension personnel at the Universities of Connecticut, Massachusetts, Rhode Island, Vermont, New

(Continued on page 27)



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Hampshire and Maine, publishes twice yearly (in January and June) the results of their calculations. This Northeast AI Sire Summary is available on request from Extension dairymen in New York or New England. Or you may contact your Cooperative Extension agent.

Only sires which have twenty or more daughters in the New York-New England area appear on this list. Unfortunately, but necessarily, this eliminates from the Northeast Sire Summary information on many currently-popular bulls with high USDA predicted-difference ratings because these bulls don't have enough northeastern milking daughters.

For example, the highest predicted-difference bull on the May, 1971 USDA report was **Westside AB Seaman**, owned by American Breeders Service. However, because he did not have enough qualifying daughters, he was not included in the June Northeast Summary report. Nor was Curtiss Breeding Service's **Pawnee Farm Arlinda Chief**, ranking number two on the USDA May report.

USDA Summary

The USDA Sire Summary is published annually by the Agricultural Research Service, and is available for distribution around September 1. Interested persons can obtain a copy, as long as supplies last, by writing: Dairy Herd Improvement Investigations Unit, Bldg. 263, ARS, Beltsville, Maryland 20705. There is no charge for the book.

The USDA report has also recently added a "Product Value" rating to its sire-performance evaluation. This "Product Value" is based

on the average price of milk and butterfat in the United States. It gives breeders a chance to compare how much more a particular bull's daughters can be expected to produce each year than daughters of breed-average sires... on a dollar basis. This dollar value index predicts expected additional income from daughters when they become mature animals. It does not take into account the cost of any extra feed required to get that additional income.

Whichever report you use, select your sires from those with high plus figures for milk or fat. Also check the reliability index included as part of the evaluation; it's a measure of how accurate the prediction is likely to be on a particular sire.

Both these reports evaluate pro-

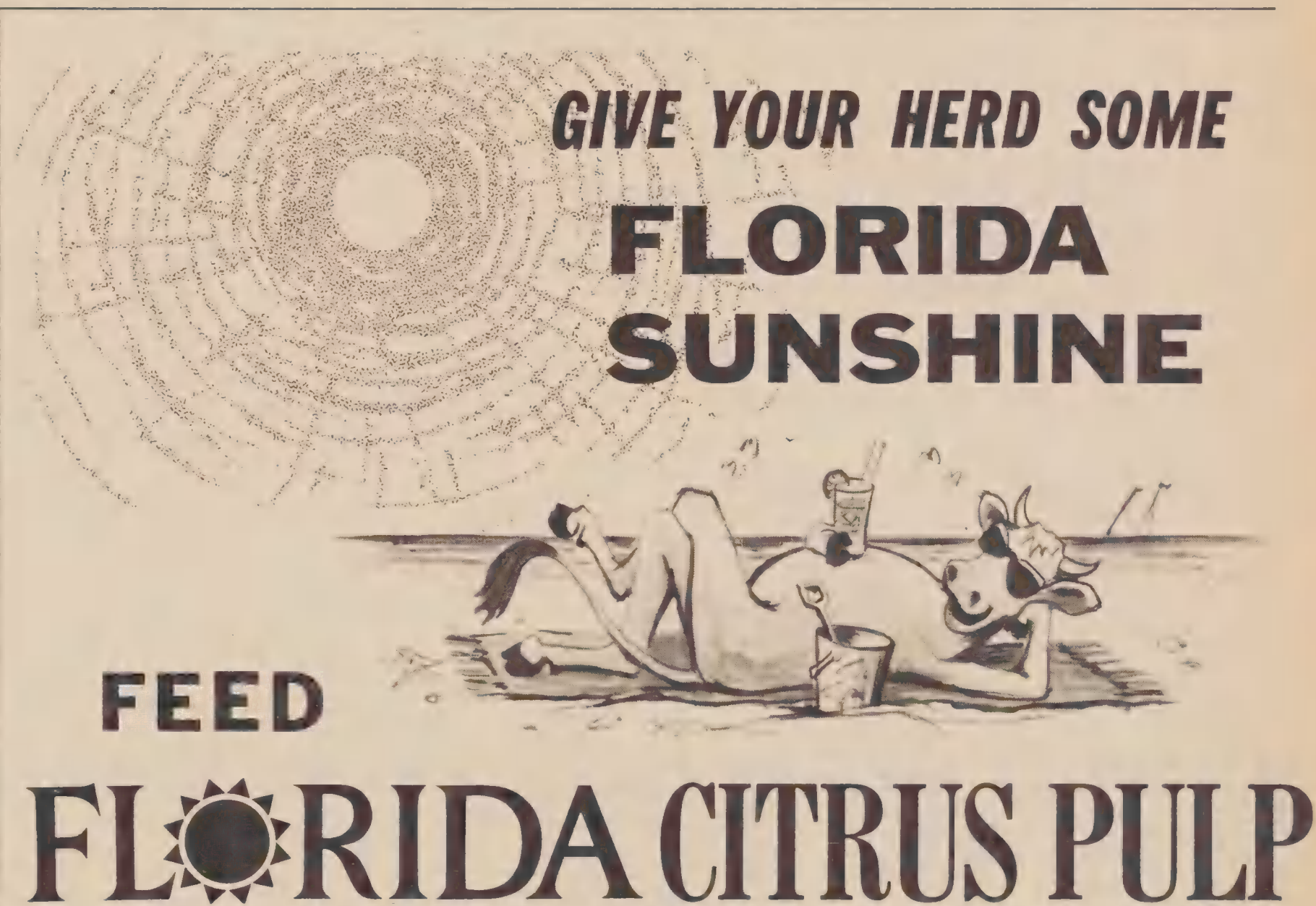
duction only. They do not evaluate type... something a dairyman ignores to his peril. What does it profit a man to end up with a barnful of high producers... if they are a collection of the weak, the lame and the halt?

Of course, most AI studs type-check a sire's daughters before they OK him for extended use. And they'll gladly supply a dairyman with information on the individual strengths and weaknesses of a particular sire's offspring. Breed associations also have available type classification breakdowns on a sire's daughters. Using these tools, a dairyman can more quickly develop the kind of strong, long-wearing animals that are a pleasure to milk and to handle.

A bull at the head of the production list may not always be the best bull for a dairyman to mate with all his cows. But there are enough high plus-proven sires available, with the right type-improving traits, that there seems little justification for using a sire with a negative predicted difference.

For generations, genetically-superior bulls were located by a little bit of experience and a heck of a lot of luck. Most of our herd improvement came, not as a result of genetic upgrading, but as a result of better management. Today we have reliable tools for identifying genetically-superior sires. No dairyman can afford to ignore them.

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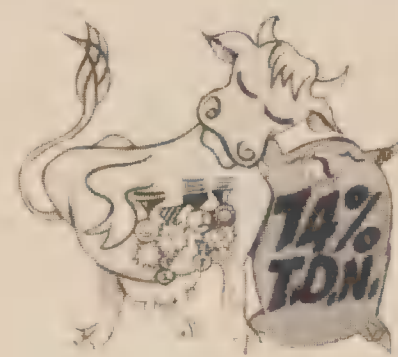
The power plant is one of 50 such units that will be installed and tested nationwide during 1972 by TARGET (Team to Advance Research for Gas Energy Transformation), a non-profit organization made up of 33 companies to collaborate in the fuel cell research and development.



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American Agriculturist, April, 1972

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lower land taxes

by Amos Kirby
 New Jersey Editor

THE most controversial legislation of the year in New Jersey is the proposed income tax, and the estimated reduction in real estate taxes as a result of the imposition of the income tax.

The proposed legislation needs to be studied by every grower in the State. If it **did** reduce the real estate tax by as much as the estimated 40 percent, it would ease one of the heavy farm-cost burdens.

Details of the proposed broader tax base are as yet unknown. With the school tax the largest single item levied on taxpayers, the income tax feature... making it possible for the State to support local education costs to a much higher degree... does offer relief to growers in that an income tax should be less burdensome than the present school levy.

A grower with \$100,000 in land and equipment has been paying local taxes on that basis, while one with \$100,000 in stocks, bonds and savings accounts may be escaping any local tax on his investments.

If the plan is approved, it might be in effect in 1973, but there will be no change for 1972.

EGG PROFITS

Charles Zimmerman, an efficient poultryman, has a simplified yardstick by which to determine egg prices.

His yardstick allows 18 cents for the feed consumed in producing a dozen eggs. There is a depreciation between the cost of the pullet and its resale value as a spent hen amounting to 12 cents per dozen. To this he adds 5 cents per dozen for labor, housing, taxes and other hidden costs.

With a 35-cent cost, one can determine the loss or profit on a dozen eggs, depending on the market. With eggs generally selling during the past winter below that figure, it's easy to explain the pessimism of poultrymen!

UPSET MARKETS

The trend toward three-day weekends is causing some serious problems for milk producers. According to Interstate Milk Producers Cooperative, consumers stock up on milk for the three-day weekend. This may create a shortage in stores and call for sharp readjustments in milk delivered from the farm to the processor. While dealers may meet the extra demand for the long weekend, it results in a slow-down in sales on other days.

Holidays are upsetting the normal practices of moving highly-perishable fruits and vegetables to market. The trend is that there are actually two good market days each week on the wholesale markets. Stores stock up for Wednesday and Friday marketing, creating problems in moving perishables the other days of the week.

FIELD TOILETS

The highly-controversial subject of field toilets for farm workers has now reached the stage where plans and specifications for their construction have been made available to growers.

After long debate, the rules have been modified to the point that they are being accepted, grudgingly, by most growers.

Toilets are not required if the workers are in any particular field for 2½ hours or less, or if a vehicle is available in the field for the workers' use to travel to headquarters.

All county extension offices have complete details on construction and location regulations.

BOOSTS PRODUCTION

Methionine, an essential amino acid, has shown to be a stimulant in some cases to step up milk flow in early lactation. It is marketed commercially as an analog, being sold to feed manufacturers under the trade names of Hydan and MHA.

Methionine has its limitations. Originally researched as a ketosis (Continued on next page)

SUNFLOWERS

The University of Delaware is experimenting with sunflower plots to determine if this crop can be successfully grown in this area, and if the sunflower can compete and show a profit versus corn and soybeans.

This area has the market. An estimated 150,000 tons of birdseed are sold in the East each year, and part of this huge tonnage consists of sunflower seed.

There are two unanswered questions: 1) Can the seed be produced to show a profit, and 2) will the blackbirds damage the crop as much as they damage the field corn that is now grown in the same area?

The tests are being conducted in three widely-separated areas.

AIR POLLUTION

If you wish to test the air pollution on your property, plant petunias... or even a few tobacco plants.

Petunias and tobacco plants are sensitive to ozone pollution. Car exhaust fumes are the primary source of ozone.

If air pollution via ozone is present, it shows up on the foliage. Watermelon leaves show white spots; potatoes show black spots, and beans are red. Spots will appear on petunia leaves. The University of Delaware has for years been growing some tobacco to determine the amount of air pollution.

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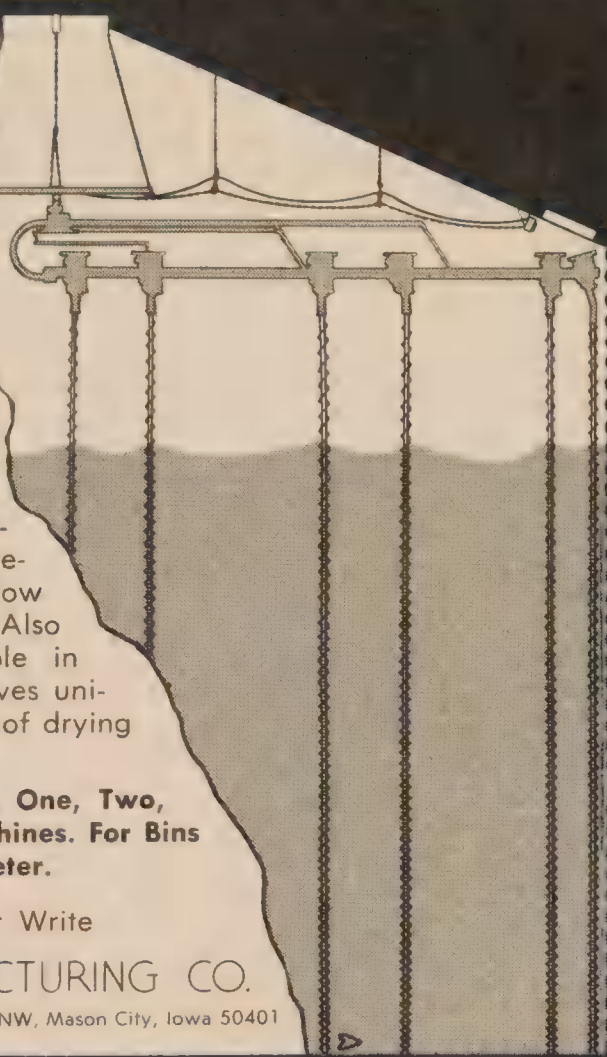
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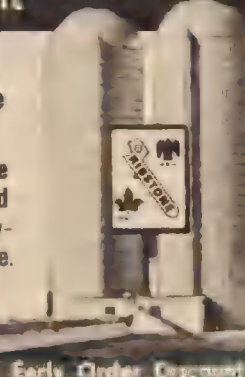
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treatment, methionine feeding has resulted in both milk and butterfat increases for cows milking at high levels during early lactation. Cows producing under 55 pounds daily, or in late lactation, have generally shown no response to this feed additive. Feeding it to all cattle during the full lactation is economically unsound.

According to the Salem County Extension Service, herd owners operating with a full group-feeding system, or who will put up with the nuisance of supplemental feeding to individual cows, may benefit from the addition of methionine to the dairy ration ... under the conditions already mentioned.

ASPARAGUS

Mechanization has brought new life to the New Jersey asparagus industry. A non-selective harvester manufactured by the Porterway Co., Waterloo, New York, was such a success in 1971 that its use will most likely be expanded this year.

While few growers made any money on the deal, due to an unrealistic price paid by the brokers, the saving in labor costs (and the removal of vexation in securing satisfactory labor) has created new life in the industry.

This spring finds the New Jersey Agricultural Marketing Association bargaining with processors in the Garden State, as well as in Delaware and Maryland, on a price that will be more realistic.

Can the industry survive? William "Bill" Hancock, Jr., an experienced grower with comprehensive cost figures, looks upon asparagus as the most promising crop for the future. It is his conviction, based on accurate costs from hand-cutting versus mechanical harvesting, that with a sensible price for the marketable product, asparagus can be a profitable crop.

The future asparagus planting will be 50 acres and up, grown from seed produced under the direction of the New Jersey Asparagus Council. The next big change will be direct-seeding instead of setting roots or crowns.

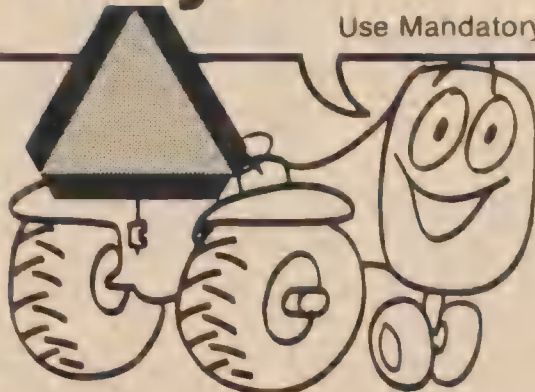
A 50-acre planting can be harvested by one man, often the owner. In Delaware, the Draper-King Cole Co. harvests 1,200 acres with 12 men and 12 machines.

New Jersey has two asparagus markets ... fresh and processed. Tests conducted at the South Jersey Research Center in Bridgeton have demonstrated that the asparagus of the future will be 4-5 inch, all-green spears, boxed in a see-through cellophane wrapper. Test marketing in North Jersey in 1971 shows that consumers will pay premium prices for a quality product.



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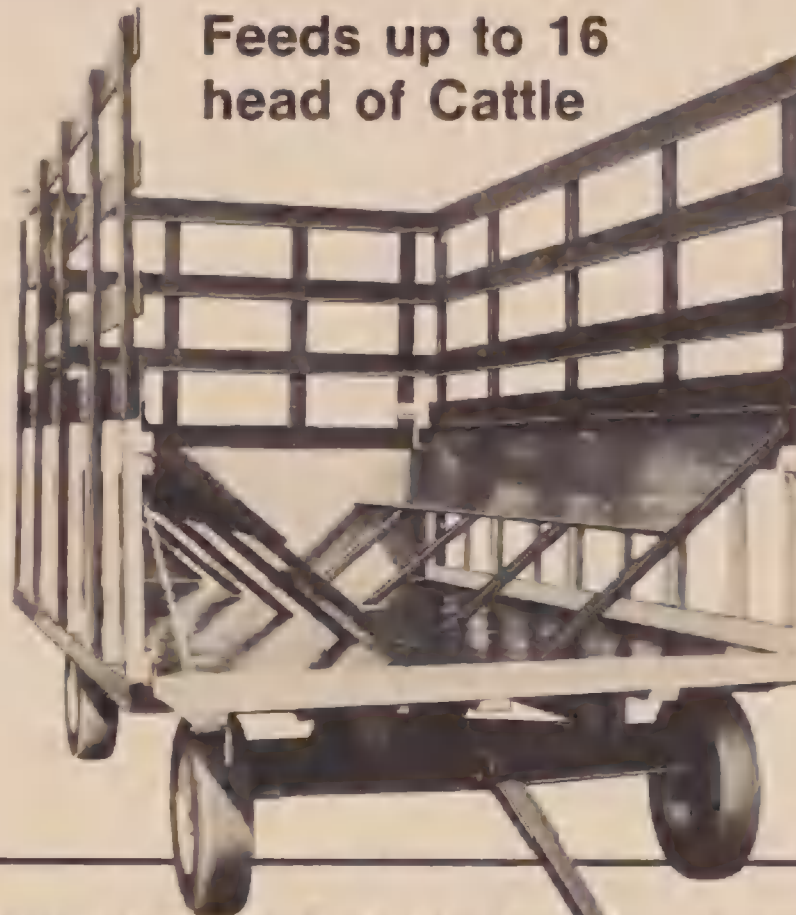
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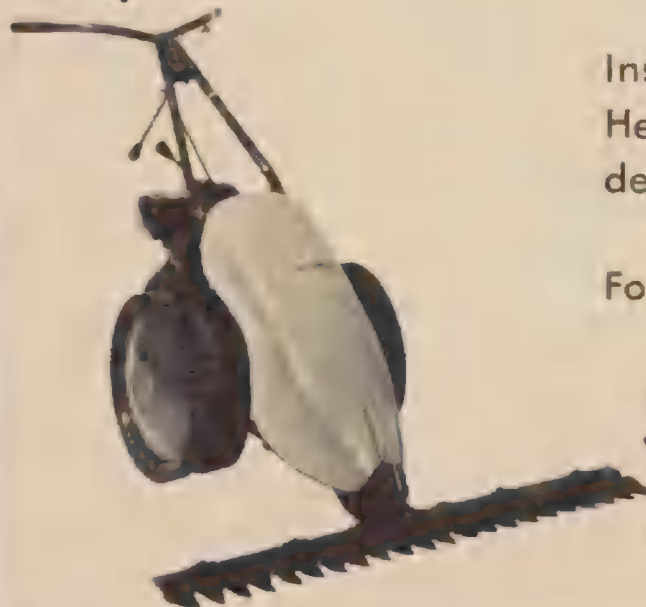
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by Doc Mettler

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WHILE coming in from an early morning call in February, I heard warnings on the car radio of a severe Northeast storm. When I got home I walked down behind the horse barn to check a section of yard fence that the last storm had weakened.

The sun was just coming up, there wasn't a cloud in the sky, and a pair of crows were calling to each other down in the woods. The wind out of the south had a spring-like feel to it, and for an instant I began to feel as though it was April instead of February. Perhaps meteorologist Ray Faulkner was wrong; maybe this would be one of those years when the frost would go out in early March.

The fence wasn't really too bad; it would hold the horses in until the next windstorm blew down another dead elm limb, and before then I'd have more time to fix the fence with a few new posts and be able to cut the dead elm, too.

By the time darkness fell that evening, the east wind was howling. The next day, when I pulled the dead limbs away and patched the fence in a foot of wind-driven snow, I wished I'd taken Ray Faulkner's advice instead of listening to the crows!

Reality

Facing reality is often something that seems difficult at the moment, but makes life easier in the long run. When you see a fresh cow only half-way cleaning up her grain, or just plain looking dull, you know there is something wrong. It is easy to say, "Well, she had a big calf and probably tomorrow she'll act better."

Tomorrow she might be the same, or tomorrow she might be dead, but chances are that tomorrow she won't be any better. Later in lactation you can gamble a bit longer, but you are still gambling... and at the present cost of cows and price of milk, you might better do your gambling on one of the state lotteries!

We often read or hear the theory that a sick cow is a simple thing to diagnose and treat. She either has a blown quarter, milk fever, or acetone. Just give her a little calcium, some pen-strep and a shot of corticosteroid, and you'll cure everything. Don't believe it!

Don't Guess

The darkest place in the world is inside a cow. Your veterinarian has learned from his education and experience to see through some of this darkness. He has tests and equipment at his command to take nearly all the guesswork out of his diagnosis. Every time you guess what is wrong, instead of finding out for sure, you are gambling \$10 you are right against \$600 that you are wrong.

Last December, the American Association of Bovine Practitioners met in Denver. The whole theme of

the meeting was on just one phase of bovine medicine, digestive upsets. These include everything from just plain indigestion to displaced abomasum, acetone, dilated ceacum, acidosis, traumatic gastritis, weed poisonings, chemical poisonings, deficiency diseases, founder from all-grain diets, and a lot more. The use of "a little pen-strep and cortisone" as a shotgun treatment for all sick cows is as outmoded as a dose of salts.

Example

Today, of course, your veterinarian is interested in helping you prevent reoccurrence of a particular sickness in your herd, but he still has to see the first sick cow to know what is going on. As an example, a few weeks ago a fresh cow in a large herd just didn't do as well as expected. She had calved normally, cleaned quickly, and wasn't off feed, but she just didn't milk as she should have. The owner checked her for acetone, found a slight reaction and gave her some corticosteroid. The acetone reaction cleared up, but milk production stayed around 27 pounds per day.

After three weeks, during which time the cow lost a tremendous amount of weight, the veterinarian was called to see another cow which was acutely sick. He was asked to look at the cow with the low production and diagnosed a right displacement of the abomasum. Treatment with magnesium oxide orally and calcium injection was tried with no results, so after another week surgery was done.

Money Lost

Two weeks later, the cow had gone from producing 27 pounds of milk per day to 52 pounds. Last year, this cow had milked in the 80's. Had the veterinarian seen her during the first few days after freshening, the non-surgical treatment probably would have worked... and not only would the surgical bill have been avoided, but the loss of 1,500 pounds of milk during the first month alone would have been prevented. Even now, the loss of milk on the whole lactation will be close to 5,000 pounds.

Another similar case occurred in December in another herd when a cow freshened and developed what the owner thought was a slow case of milk fever. He administered calcium because she wouldn't eat, made no manure, and felt cold to the touch. The next day she was no better, and a veterinarian who was at the farm vaccinating calves was asked to check her.

He, too, thought first of milk fever, because of her appearance, but in his usual routine of complete examination he noticed that her temperature was 102.9 instead of the usual sub-normal milk fever temperature. Her rumen was dead; that is, no rumen

(Continued on next page)

American Agriculturist, April, 1972

family wages

ONE Northeastern farmer, whose seven youngsters range in age from 5 to 18 years, stimulates farm interest by paying them regular wages. They all get paid, and they all have to save.

"Soon as I started paying them," he says, "I noticed a big change in their attitude toward the farm."

He reasons that if youngsters don't get paid for their work, or if he skimps on family living conditions, the kids will remember when they

grow up, and they'll quit the farm.

All family members get paid for the work they do. If they don't work, they don't get paid. Each one gets to keep no more than \$5 a week for spending money while in school. The rest is banked weekly in their individual savings accounts.

The youngsters 14 and over get \$1 an hour. Nobody gets paid for certain specific household or farm chores... such as cleaning their rooms or taking out the garbage.

Straight Time

Nothing is done on a piecework basis; he refuses to "pay for four hours when the job only takes thirty minutes." On jobs where he would normally have to hire outside help, he hires the family and ups the

wage from \$1 to \$1.60 an hour until the job is done.

Even the five-year-old girl has work to do. She's paid a straight \$2 a week, gets to keep \$1 for spending money and has to bank the rest.

"They're more interested in the farm how, even if they have to shovel manure to buy bubble gum with their own money," he says. "I warn them that if they want to 'blow' it all it's all up to them, but we're a 52-week family and they've got to save for family birthday and Christmas presents."

This farmer is now 40 years old. He has a sizable farm income and his property is continually increasing in value. He plans on definite retirement in ten years.

But he's hoping that by paying his family wages he can prove to them that there's a good opportunity to be had in farming and then someone will carry on. If he misses his bet, he'll sell out at a good price and retire. — Charles Stratton.

A husband of ten years was consulting a marriage counsellor.

"When I was first married, I was very happy. I'd come from a hard day at the shop; my little dog would race around barking and my wife would bring me my slippers. Now, after all these years, everything's changed. When I come home, my dog brings me my slippers, and my wife barks at me!"

"I don't know what you're complaining about," said the counsellor. "You're still getting the same service."

Mettler

(Continued from page 30)

contractions could be heard, and her pulse was over 120.

This cow was supposed to have had a magnet, but checking with a compass revealed that . . . if one ever was administered . . . it must have been thrown out, or had lost its power. The veterinarian's diagnosis: hardware.

In this case, surgery was not necessary; a magnet and a little old-fashioned penicillin brought her back on feed and milk in three days. Had she been left another two days without treatment she might have been too far gone to respond to even surgical treatment.

A third case involved a "typical acetoneemia" treated by the herdsman on a large farm. The cow didn't respond, so the owner made a diagnosis of displaced abomasum. He and the herdsman decided they could save the cost of surgery by rolling the cow. When they rolled her they noticed a lot of discharge running from the cow's genital tract. This being a typical involvement, the cow was treated for uterine infection and made a slight improvement. After a few weeks, she began to lose weight again.

Months later a veterinarian was on the farm doing pregnancy exams. He noticed the cow's condition and remarked to the owner about it. A complete examination was made, and the diagnosis was pyelonephritis, infection of the urinary tract. This could have easily been treated when the cow first showed symptoms, but by this time the best the owner could end up with was a thin cow, nearly dry and not yet bred back.

Your veterinarian could tell you a dozen more case histories just like these without having to think very long about it.

When the crows call, and the south wind really means April is here, you are going to want to get a plow in the ground and start spring work. No matter how busy you become, however, don't forget those girls back in the barn. They need your sharpest attention every day of the year . . . and when they look a "little off," check them out. Unless you are 100-percent sure, don't guess, call your veterinarian.

American Agriculturist, April, 1972

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FORESTRY



Stump Remover — Development of a new stump cutter designed to meet the special needs of municipalities, parks, cemeteries, utilities, landscapers, tree surgeons and service firms is reported by Valley Products Corporation, Valley, Nebraska. Weighing less than 150 pounds and only 29 inches wide, the new VPC Model 5 Stump Cutter provides easy maneuverability between gates, next to walks and drives, and in confined working areas. An 8-hp engine with rope start and remote throttle control provides power to remove an

8-inch hardwood stump to 8 inches below ground in just three minutes.



The VPC stump-whomper does its thing.

Shot in the Bark — By developing a new technique for giving fungicide "shots" to trees, USDA Forest Ser-

vice researchers feel they're on the threshold of controlling . . . possibly even preventing . . . such destructive tree diseases as Dutch elm and wilts of oak and maple. In 1971 tests, researchers were able to inject 60-foot trees with a benomyl solution and get the chemical to move rapidly to the farthest twig.

Process is relatively simple. An injection mechanism is belted to the tree, and a fluid supply hose transmits the solution through the injection head under the pressure of compressed gas. The device can be attached in five minutes; the treatment completed in 15-30 minutes.

In addition to economic and physical advantages, the system could also help avoid the environmental-

pollution hazards associated with other methods of chemical application.

Test tree gets a fungicide "shot," as chemical passes through plastic tubing into injector heads.



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Agway LPS bridges the gap

When your cows go out to pasture, their diet changes dramatically. They tend to fill themselves on relatively low-protein grass. So there's less room for high-protein hay and feeds. Without adjustment in the feeding program, milk production suffers. There's just no longer enough protein to sustain it.

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LPS is available through most Agway Stores and Representatives. For complete information, contact your local Agway Store or Enterprise Salesman.

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LIVESTOCK



Sheep — Production, marketing and management systems to make lamb and wool production a consistently profitable business are studied in the publication entitled "Sheep and Lamb Marketing." Copies of the publication may be obtained from Sheep Industry Development, Inc., 200 Clayton Street, Denver, Colorado 80206, for \$2.50 each, which includes postage and handling.

Hereford Tour — A three-day tour sponsored by the New York Hereford Association, with assistance from Cooperative Extension, provides an unusual opportunity for you to see some outstanding Hereford operations in Pennsylvania, Maryland and Virginia, plus an optional visit to Skyline Caverns in Virginia. Dates are April 14, 15 and 16.

The tour, by Trailways bus, leaves Batavia, New York at 7 a.m. on the 14th, with a 9 a.m. pickup stop in Syracuse and another between 11 and 11:30 a.m. in Binghamton. Cost is \$80 per person. Reservations are on a first come, first served basis. For full information, contact: Neil Bonter, Howard Road, Holley, New York 11470.



"I hate this business of paying the outgo before I get the income!"

the triple threat

ASK almost any New York corn grower to name his worst problem weed a few seasons ago, and nine times out of ten he would say **quackgrass**. But, the odds have changed!

According to Dr. William B. Duke, weed specialist at Cornell University, "Our most serious problem weed in corn right now is nutsedge, sometimes referred to as nutgrass. The spread of nutsedge in recent seasons has been phenomenal, and it's now just as much a problem as quackgrass."

"And the rate of spread seems to be increasing so that nutsedge should soon overtake quackgrass as our number one problem weed here," he predicts.

"There are several factors that have helped make the problem worse," Duke says. "First, nutsedge likes moisture, and there's been a pattern over the last few seasons of wetter springs."

More Corn

He also points out that more old pasture and alfalfa acreage has been planted in corn. "This land frequently was not kept clean, and weeds were allowed to multiply," Duke reports. "Another factor is the reduction of many competitive weeds once normally found in field crops."

"Even more important has been the increasing use of bigger harvesting equipment. These tend to pick up more tubers and weed seed and spread them from field to field. Cultivators also are guilty of spreading infestations."

Yield losses can be devastating. "I've seen some corn fields with up to 70-percent yield loss where no effective nutsedge control measures were taken," Duke says. "Under the right conditions, it can literally take over a crop in as little as three years."

Deceptive

It appears to start slowly, but it's deceptive. "Most growers don't notice it until it's got a strong foothold in the crop," Duke says. "Then you really have to work fast to head it off!" Nutsedge is a true triple threat . . . spreading in three different ways . . . via tubers, seeds, and rhizomes. Eradication is virtually impossible since tubers can survive up to seven years in the soil before they sprout.

"But there is a solution," he says. "The best one so far is a combination of Sutan herbicide and atrazine (AAtrex) applied preplant and incorporated. Sutan has shown excellent results on nutsedge, as well as on other problem grasses in Cornell test plots over the last five years. Atrazine is combined with Sutan to increase control on broadleaf weeds."

"We've been able to reduce 100-percent infestations by more than 80 percent," Duke says. "Growers can expect 80 to 90 percent control under most conditions. This is adequate to protect yields, and it effectively checks rampant spreading," he contends. An alternative recommendation is a split application of

atrazine . . . two pounds preemergence, followed by another two-pound application (with oil) post-emergence.

In other crops, such as alfalfa and soybeans, effective nutsedge control can be achieved with Eptam and Vernam, respectively. "Sutan, Eptam and Vernam are thiocarbamate herbicides and so must be applied preplant and incorporated with a disc in two directions," Duke points out.

The advantage of preplant incorporation is that the chemical is mixed

uniformly into the soil at the right time and the right depth to assure maximum activity. Incorporation protects the herbicide against dissipation from wind, rain, or sunlight and eliminates the need to wait for rainfall to move the material into the weed-seed zone.

Although a total eradication program is still unknown, Duke stresses that effective, economical control can be achieved. "We find the Sutan plus atrazine treatment in corn so effective we are now advising corn growers . . . especially those who are planting earlier . . . to delay planting, if it's necessary, to allow time for the preplant application. It's our opinion that the benefits of good nutsedge control, where it's needed, outweigh those of earlier planting."



Nutsedge doesn't look so dangerous, but it's one of the toughest rascals invading cornfields!

GOOD THINKING

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Winners plant early. Farmers who plant DEKALB XL's early score with higher yields. It's a fact...verified by results in the 1971 DEKALB 200 Bushel Club. The highest yields in New York came from early May plantings. Of the 12 yields over 150 bushels* per acre, 10 were planted before May 15th.

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That's the yield of Dennis C. McNamara at Stanley. He planted XL-15a on May 6th on muck ground high in potash. Planting rate was 26,000.

XL-21

Populations: Up to 24,000 at harvest.
Height: Plant—medium; ear—medium.
Standability: Excellent.
Maturity: A little earlier than XL-315.
Adaptation: Wide range of soils and populations.
Grain: Excellent, high test weight.

XL-22b

Populations: Up to 22,000 at harvest.
Height: Plant—medium; ear—medium.
Stalk quality: Excellent.
Maturity: Little earlier than XL-316.
Ear: Large; excellent kernel quality.
Adaptation: XL-22 maturity range, plus areas further North.

XL-316

Populations: Up to 22,000 at harvest for grain; higher for silage.
Height: Plant—tall; ear—medium.
Standability: Excellent.
Maturity: A few days later than XL-12.
Adaptation: For grain or silage. Not choosy about soil or season.
Grain: Excellent quality, heavy test quality.

OTHER TOP YIELDS IN THE 200 BUSHEL CLUB

Name & Address	Hybrid	Yield*
Ronald Hurtgam, Barker	XL-12	150.95
Robert A. Smith, Stanley	XL-21	161.03
Ted & Jim Minns, Geneva	XL-21	174.39
Ralph Bowerman, Macedon	XL-44	166.11
Raymond Lathrop, Shushan	XL-12	162.14
Gillam Bros., Clifton Springs	XL-24	174.02
Kime Farms, Geneva	XL-15a	161.42
S. J. Hasbrouck, Jr., Hurley	XL-45a	150.47
Gordon C. Minns, Canandaigua	XL-12	157.72

*Mechanically harvested without gleaning from a measured acre or more, calculated as No. 2 corn and verified by an impartial third party. The DEKALB 200 Bushel Club is not a contest.

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DEKALB
XL

"DEKALB" is a registered brand name. XL numbers designate hybrids.



THE FARM KRONECLE

by
BERNARD KRONE
Bernard Krone, USA

What do you look for when you buy farm equipment? Whether you are a dairy or a cash crop farmer, chances are you want machinery that will help get the job done faster, give more production per acre and stand up well under heavy duty. Now, I'm not trying to hand out advice. I figure the man smart enough to ask for advice already has a couple of good answers. But here are some facts you might consider...

The Krone Mower-Conditioner and the Krone Pick-up Wagon meet the demand for equipment requiring less time, labor and servicing. Our versatile Krone 5½ ft., 9 ft., and 11 ft. hay mower-conditioners are ideal for hay and haylage farmers. They offer these benefits:

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- cuts heavy, upright, laid and wet hay equally well
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- cutting height hydraulically adjusted
- cuts hay on the most rugged terrain
- drawbar folds for easier transport

MOWER-CONDITIONER



To help transport loose, green hay, haylage or dried hay, beet tops, peas, etc., there's a Krone Pick-up Wagon with these features...

- pre-cuts and loads at the same time
- for green feed or silo storage after recutting
- tractor driver the only operator needed
- minimal power requirements
- useful for general purpose work

PICK-UP WAGON



For cultivating including seed bed preparation, land and forest reclamation, you can use Kronevator Heavy Duty Rotary Tiller-Cultivators. Kronevators are available in 4 basic models, the RL, RE, REV and RF with several sizes of each. With the exception of Model RL, each can be furnished with multi-speeds. Special features include:

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- only model in this price class with gears running in oil bath
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Jack Rejman in the building where calves spend the first three months in slat-floored, raised stalls.

family corporation

W. J. (Jim) Rejman and son Jack operate a 225-cow dairy farm on the Indian Field Road near Venice Center (Cayuga County), New York. The 892 acres owned by the family corporation (Venice View Dairy) provide more than enough roughage and corn grain for all the cattle on the place.

The milking herd, which is housed in a near-new free stall complex, is divided into four groups... three according to production level, and one dry-cow group. "We've had a problem," Jack comments, "with low-producers and dry cows getting overconditioned because they reach across the feed bunk from their side and swipe feed from the higher producers on the other side."

Measurements

The feed bunk measures four feet across on the inside... and its sides are two feet above its floor, which in turn is only six inches above the feeding-area floor. The Rejmans believe the dimensions of the bunk are instrumental in cutting feed wastage by cows to a minimum... as contrasted to bunks that are shall-

lower and farther above the floor. However, they plan to add a divider down the middle to prevent the feed larceny mentioned earlier.

Unbred heifers, and calves over three months of age, are housed in the conventional barn formerly used for the milking herd. "It's not an efficient setup for these animals," Jack comments, "but we just haven't decided yet how best to rearrange it." Older heifers have access to an outside feed bunk, and shelter is available. At present, cows freshen on a manure pack in yet another barn... to which they are taken about two weeks before freshening.

Calf Stalls

Calves are raised in a small building fitted with slat-floored individual stalls elevated above the floor. A heater fired by bottled gas moderates winter temperatures, and an exhaust fan keeps air moving. "Get calves out of these stalls by 10-12 weeks of age," Jack advises. "They lay down the same way each time, and their soft leg bones will begin to bow if you don't."

(Continued on page 35)

The Song of the Lazy Farmer

My neighbor works to beat the band to get each acre of his land in tip-top shape for planting crops, he don't seem like he ever stops. I hear his tractor



tor pounding there each morning 'fore I comb my hair, and after bedtime ev'ry night he works by artificial light. He says that working night and day is how he makes his farming pay; he claims that if he took his time we might run into stormy clime, and then his spring work would be late, and all his crops might meet the fate of getting froze to death next fall, then he would have no cash at all.

I can't see neighbor's arguments, to me they simply don't make sense; of course, a late crop can be froze, but any real farmer knows that early plants may get too wet, and often they are apt to get all chewed up by insects or worms or ruined by some early storm. Besides, poor neighbor will be so worn out when weeds begin to grow that he won't have the pep to get them killed in his corn field, I'll bet. And so I think I'll wait some more, just like I've done each year before; I'll rest until two weeks from now before I hitch up to my plow.

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(Continued from page 34)

Manure from the milking herd is handled as a slurry . . . scraped from the free stall and feeding area into an underground tank measuring 32×90×11 feet. It's divided by a wall in the middle to form two tanks in order to facilitate removal of solids. Then each tank so formed has a divider through its center to a point eight feet from the end of the tank . . . so the manure-removal process can get the slurry moving in a circular motion around the perimeter of each tank.

Collapsed

Unfortunately, when the Rejmans emptied one tank . . . and the other was full . . . the enormous pressure on the major divider between the tanks caved in a big chunk of it. "There just weren't enough reinforcing rods in the wall," Jim comments. "We've heard of a number of other such collapses, so apparently all too few contractors build 'em strong enough."

The Rejmans had to go back to drawing manure every day when the tank wall collapsed so the contractor could get into the tank to make repairs. "We sure were more convinced than ever that liquid manure handling is for us," Jack comments as a result. "Now that we're back to using the tank again, it takes two men ¾ to 1 hour to clean the barn each day . . . and 3 to 3½ days to draw out the tank and spread it every 2 to 2½ months." Spreading tanks include one with 1,500 gallons of capacity, plus a 3,000-gallon tandem machine.

No Plug

Wash water and manure from the entire milking parlor and milkroom complex goes to the manure pit . . . no problem here with a plugged-up septic system. The milking parlor is a double-eight herringbone . . . no grain is fed there, although bottomless feed mangers were installed to keep the cows sorted out and standing in one spot. "We need a crowd gate," Jim admits, "to get 'em in the parlor."

Grain is fed to the milking herd

FORESTS

No voice need sing the forest's praise,
Or urge on man the sylvan ways;
For tree-tops whisper, sigh and scream
More moods than mortals think or dream.

The woodland rings with calls and cries
Outmeaning music men devise;
Each sound and silence stirs the heart;
Each tree and moss is perfect art.

But why extol as though we could
Improve the message of the wood?
Far better just to see and hear
And feel the forest standing near.

Monroe Conklin



"We'd better go on that outing today. The weather man says it will rain tomorrow!"

in the feed bunk inside the free stall barn. A 25×65 Harvestore is filled with high-moisture shelled corn (HMSC) . . . this is run through a roller mill and, along with protein supplement and mineral mix, is dropped into silages as they go by on the conveyor toward the feed bunk. Groups one and two cows get haylage, HMSC, protein, and minerals . . . groups three (low producers) and four (dry cows) get corn silage and haylage (50-50) plus minerals. The Rejmans shoot for haylage at a moisture content of 40-50 percent . . . "just before it gets dusty."

No baled hay has been fed to the milkers for two years. Jim and Jack report increased incidence of displaced abomasum, but no other

problems sometimes suspected of being associated with the absence of hay in bovine diets.

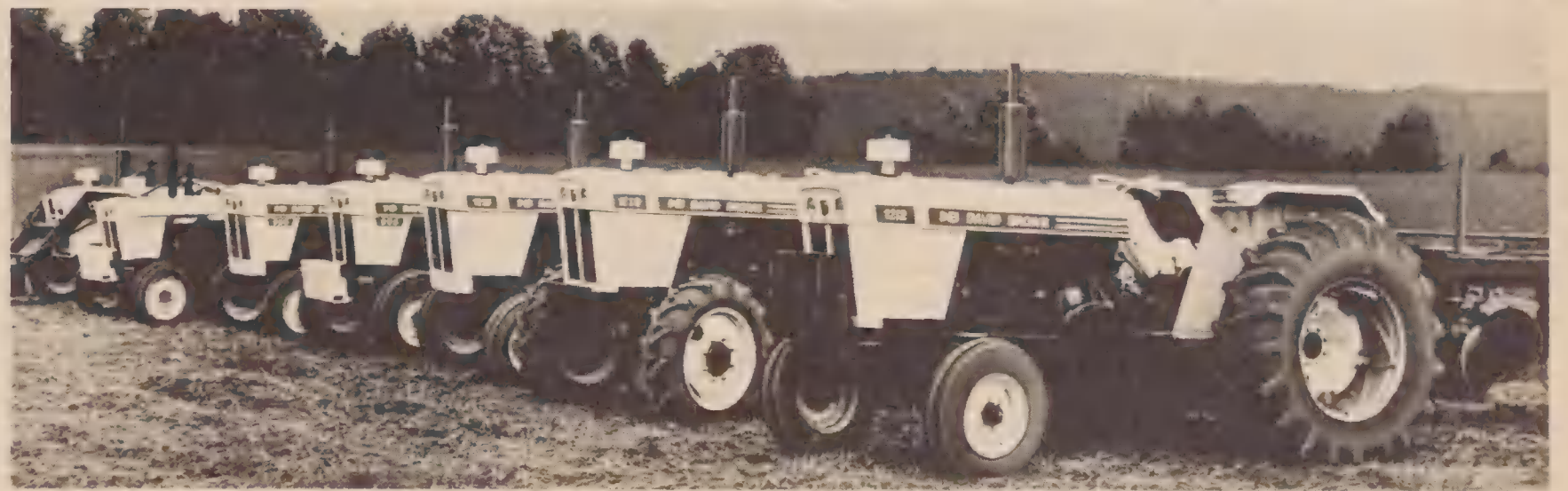
In addition to the two Rejmans, the farm labor force is made up of one nephew full-time, and another 16-year-old nephew on a part-time basis. Economists talk of "total man equivalent," and the figure here of 3.5 is awesomely small in comparison to farming in most of the rest of the world.

Electric power is, of course, one of the major reasons why so few can produce so much. However, the Rejmans report a chronic problem of low voltage has troubled them . . . a problem which considerable checking revealed as one not of underwiring at the farmstead, but rather low voltage on the highline

by the farm. Corrective measures are underway.

A high level of mechanization creates the labor flexibility that allows Jack and his wife to take a few days off occasionally, more often than Jim was able to do when the same age. Jim and Jack have their own airplane, a diversion Jim enjoys, although Jack does the piloting.

Here's a big, successful farm that is technically one of these "corporation farms" we hear so much about. But it is still very much a family farm . . . controlled and managed by the family . . . incorporated to facilitate transfer of assets between generations, and to allow the financial flexibility so necessary when farm assets reach the levels obviously involved in one this size. — G.L.C.



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with a dash mounted lever, under full power and without interrupting the ground or pto speeds.

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4 wheel drive, the new 58 pto hp 995, the improved 990, and the new 885 available in gas or diesel.

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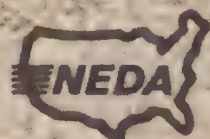
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lady beetles fly away

by George G. Gyrisco and Carolyn Klass*

LADYBUGS . . . more appropriately named lady beetles . . . are found from Alaska to Argentina, and from Norway to South Africa. They all belong to the lady beetle family, *Coccinellidae*. This important family of beetles is made up of nearly 4,000

different species in the world, nearly 340 of which are found in North America. Only about 40 of these species are the typical large, orange or reddish type, while the remainder are blackish and usually much smaller.

Generally speaking, the reddish-orange species feed primarily on aphids or plant lice while the smaller, darker-colored species feed on

insect scales such as the pine needle scale . . . as well as mealybugs, white flies, and some spider mites. These smaller, blackish beetles are seldom recognized as lady beetles by the average layman.

Eating Time

When prey is scarce, nearly all lady beetles feed on honeydew, extra-floral nectary secretions, and pollen. Some will even nibble on flower petals. Others of this same family strictly feed on plants. These include the large, grayish-yellow Mexican bean beetle with black spots that feeds on garden beans, and on field-grown snap and red kidney beans. Others feed on fungi and powdery mildews; they belong to the *Psyllobora* group.

They never feed, however, on white grub larvae found in the soil, on Japanese beetle adults, leafhopper adults or large caterpillars pictured in some advertisements that recommend buying lady beetles to do in the black-hats in your garden. To make a statement that "never again need you use dangerous insecticides that kill off friendly insects, wildlife and harm your family health" is utter nonsense. The implications made in the ad are ridiculous and without fact. Such ads dupe the public, brainwashed as it is on tales of ecology.

Many of our lady beetles do naturally control aphids, some scales, and some mealybugs in our gardens and croplands. Hence, it is little wonder that many growers and gardeners want to collect or buy lady beetles to release against aphids. Usually, the easily-collected species called the "convergent lady beetle" . . . found clustered in a state of diapause (a sort of hibernation) . . . is what is collected and sold to the unsuspecting public.

Some History

In the early 1900's, the California Department of Agriculture started a program collecting great masses of the convergent lady beetles (*Hippodamia convergens*) that had congregated in the mountain canyons of the Sierra Nevada Mountains. Tons of lady beetles were and can be collected there in December and January. These were placed in cold storage, and given to growers who requested them at the rate of 30,000 beetles per 10 acres of such crops as alfalfa and small grain.

For five years, entomologists studied these annual releases. By using marked beetles, they found that . . . regardless of when the beetles were released during the day or night, or whether aphids were present or not . . . the majority of the lady beetles, up to 90 percent, flew out of the fields when they were released.

Since that time, other entomologists have experimented with marked convergent lady beetles in various crops; the results were always the same. However, private businessmen with visions of easy money have been collecting convergent lady beetles from the mountain areas where they congregate and have sold them to unsuspecting farmers and gardeners. As many as 10,000 gallons per year have been collected . . . each gallon contains about 75,000 beetles.

The convergent lady beetle begins
(Continued on next page)



Small farms are changing.

For 21 years John Hay has been working his Kansas farm. He's up at 4:30 every morning. And some nights he's out in the fields till 11. "You've got to work awful hard just to pay for the

machinery."

"When I buy a new truck like Chevrolet, I run it for a bit and then, first time I change the plugs, I put in Champions.

"I've tried some of the other

plugs, but they didn't seem to want to work as long."



Toledo, Ohio 43601

7 million Chevrolet owners have switched to Champion Spark Plugs.



"You're lucky, Al. Today we're giving double stamps!"

American Agriculturist, April, 1972

Food For The Spirit



by Robert L. Clingan

THE DANGER OF LOSING WHAT YOU HAVE

THOSE of us unacquainted with the medical arts are amazed at how soon a patient who has been through major surgery is forced on his feet, made to walk across the room, and soon up and down the halls of a hospital. The doctors now know that the patient has a better chance of full recovery if the muscles of the

body are placed into use, and the blood vessels are required to expand and receive a larger supply of blood.

Somehow, if the patient does not use the strength he has left, he will lose part of what he has. If a well man spent a week in bed, he would become weak indeed.

It is also true in the realm of the skills developed by an artist or musician. I once visited a home where a violin hung on the wall. Upon inquiry, I learned that the man of the house had once played the "fiddle." When I asked him to play for me, he replied, "I haven't played for year; I can't play anymore."

How and why had he lost the ability that had once delighted his family and friends? Simply by disuse . . . hands no longer used to hold the

violin, finger the strings, and draw the bow, had lost the ability they once had.

This can even be true of the great artists. One of them on concert tour was asked why he practiced every day. He answered, "When I miss one day of practice, I know it. When I miss two days, the music critics know it. When I lose three days, even the audience knows it!"

The truth about losing what you have through disuse is equally true of the life of the spirit, including the practice of Christian compassion. There is something in us that naturally responds to the call of God. When we ignore that call, and deny ourselves the practice of the Christian life, we soon cease to be people of Christian insight and sensi-

tivity. There is always a great danger of losing what we have in terms of the practice of our faith . . . it is easily eroded from us.

Insight about the loss of spiritual power through disuse was recognized by a Spaniard who wrote to his king in 1538 "...the power of maintaining life in others lives within each of us, and from each of us does it recede when unused. It is a concentrated power. If you are not acquainted with it, Your Majesty can have no inkling of what it is like, what it portends, or ways by which it slips from one."

It is no less true today than it was then. We stand in constant danger of losing the best in our lives if we fail to strengthen it through use.

IN THE TWILIGHT

I sit quietly in the twilight
Of a day that is passing away;
And I think of days long gone by,
So sweet I would bid them to stay.

But Time passes on unrelenting
Yet leaves memories of one that is gone;
Memories of one whom I cherished,
That makes sweeter my days spent alone.

Memories of one who was faithful
In the work God meant him to do,
As he strived for his daily bread
And cared for his family too.

I see his works still around me,
For his care for me lingers yet;
And his labor of love is not in vain,
For I will never, never forget.

by Anna Frances McPherson



Beetles

(Continued from page 36)

its migration from the valleys to the mountains of California in May and they remain quiescent until the following February or March. During these nine months that they congregate in the mountains, they do very little feeding . . . living largely on the huge amounts of fat stored in their bodies.

Such beetles, when released in aphid-infested fields, do very little feeding on aphids. They may congregate in the fields, or fly out en masse. It was found that if the convergent lady beetles are released in summer, they do not feed or reproduce. If released in the spring, 90 percent fly out of the fields . . . hence, they are of no value in aphid control.

Other species of lady beetles of the genus *Coccinella* will enter the diapause state after the first generation whether aphids are present or not; the aphids they eat are converted to fat, and not eggs. Hence, after the spring generation, the summer generation is of little value in controlling aphids in a season when many species of this pest reproduce in great numbers.

So, as the song says, ladybugs do fly away when the house is on fire!

American Agriculturist, April, 1972

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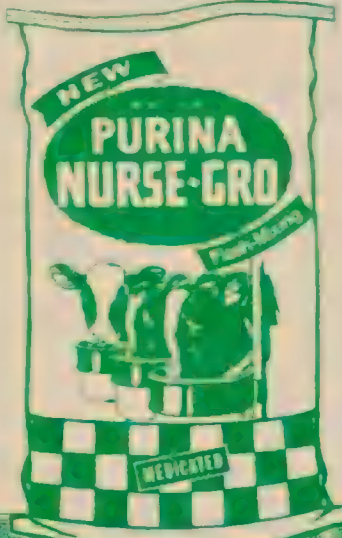
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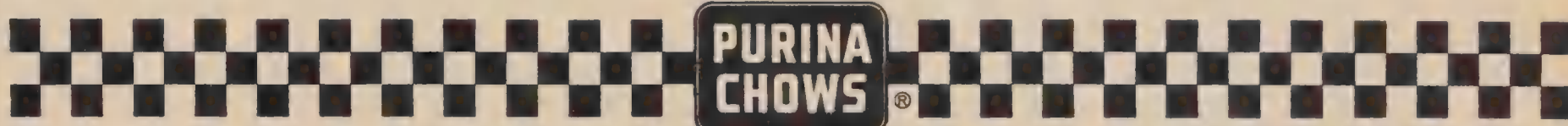
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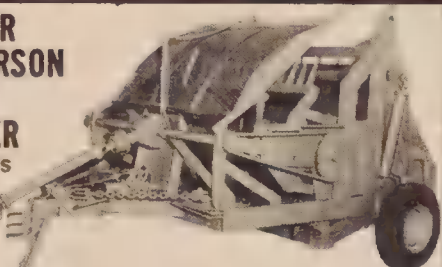
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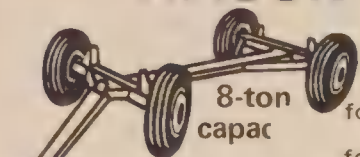
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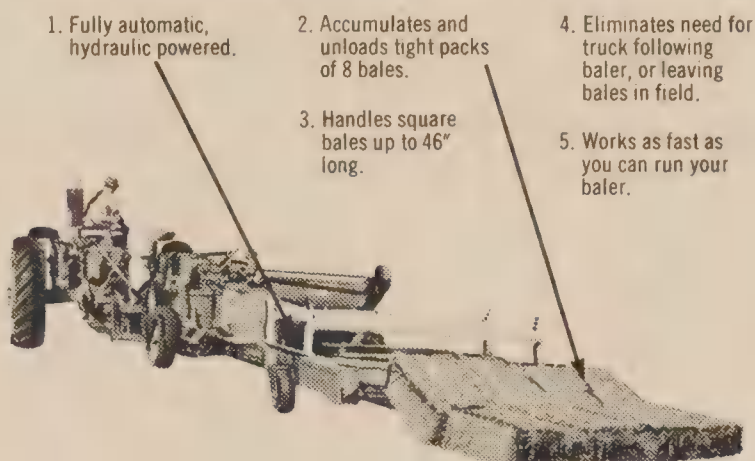
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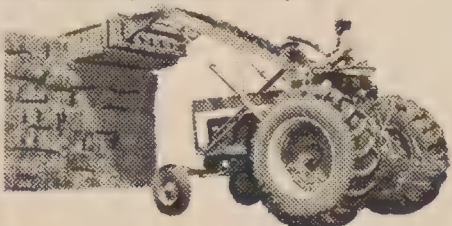


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Dollar Guide



MILK PROMOTION and research program, financed by deductions from milk checks of all NYS dairymen, carried in recent referendum; 57.94% voted yes.

VEE VACCINATION of horses should be completed by May 1 . . . before mosquito season begins. VEE epidemic in 1971 killed hundreds of horses in Southeast, is potential danger to all U.S. horses.

U.S. POTATO GROWERS have approved . . . by a 69 percent "yes" vote . . . a nationwide spud research and promotion plan, financed by an assessment of up to one cent per cwt. of potatoes handled.

SEASONAL MILK-PRICING plans are now identical under the Boston, N.Y.-N.J., and Connecticut milk orders. All have been amended to increase by 10¢/cwt. the take-out March-June (to be added to fall milk checks). Taken out will be: March, 20¢; April, 30¢; May and June, 40¢.

AGRIBUSINESS EXECUTIVES school at Cornell June 12-23. If interested, contact Professor R.D. Aplin, 212 Warren Hall, Cornell University, Ithaca, N.Y. 14850 by April 15.

LIQUID FERTILIZERS, especially ammonia fertilizers, are often economical buys . . . but they can cause accidental blindness. Wear eye protection when handling them.

WHITE WHEAT . . . the kind most grown in Northeast . . . will probably be up in supply in 1972 as compared to 1971. West Coast dock strikes cut normal exports very deeply, and previous overseas markets lost for some time. Price outlook for this type of wheat not encouraging in '72.

EGG SUPPLY MANAGEMENT bill now in Congress has stirred up great controversy among poultrymen. Designed to force culling birds from all flocks over 10,000 if egg prices are low, the bill is supported by United Egg Producers . . . roundly denounced by the Poultry and Egg Institute of America. Traditional roller coaster of egg prices has become heavy burden for an industry with enormous capital investments, but many poultrymen resist government-imposed "production discipline."

FARMLAND PRICES were up an average of 5 percent in U.S. from November 1970 to November 1971. Pennsylvania up most (11 percent), New Hampshire and Vermont up 9 percent, New York up 8 percent.

FARM PONDS are thoroughly discussed in two new USDA bulletins . . . "Trout Ponds" (No. 2249) and "Warm-Water Fishponds" (No. 2250) . . . each available at 15 cents per copy from Superintendent of Documents, U.S. Printing Office, Washington, D.C. 20402.

POWER GRAYOUT . . . when lights dim for a time . . . can really louse up electric motors because voltage drops, and motor may burn out. Disconnect or turn off all motors if situation occurs.

DAIRY PRODUCT IMPORTS into U.S. may increase with entry of Great Britain, Ireland, Denmark and Norway into the Common Market. Australia, Canada and New Zealand will lose much of British market for dairy products, and will be trying even harder to sell butter and cheese in the U.S.

HERBICIDE INTERACTION has appeared on some New York alfalfa fields where atrazine had been used on corn before seeding. Residue of atrazine becomes more lethal to alfalfa when latter is treated with herbicide EPTC. Suspicion is that EPTC prevents the synthesis of the enzyme that normally detoxifies atrazine.

NET U.S. FARM INCOME will reach new high in 1972, most experts agree. Government payments to be up a billion dollars over 1971, and livestock prospects are especially bright.

BUILDING RENT thumb rules call for an annual rental figure about 10 to 15 percent of the cost of a new building . . . about 15 to 20 percent of the present value of an older structure. Remember the "DIRTY 5" costs of owning a building . . . depreciation, interest on investment, repairs, taxes, and insurance.

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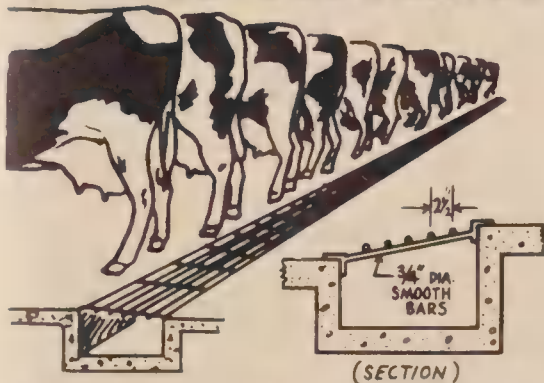
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Manifold heat valves are

hot-air directors

by Wes Thomas

FOR correct operation of your tractor, truck, or car engine, the temperature of the fuel-air mixture entering the cylinders must be right. Extra heat from the exhaust manifold must be supplied during warm-up on most trucks and cars. In many tractors, a manual adjustment is made to provide extra heat continuously or not at all.

In all cases, inadequate heat prevents complete vaporization of the gasoline. The engine is slow to warm up and may stall, spark plugs become fouled, and carbon deposits build up. Poor acceleration and decreased gas mileage is the usual result in cars and trucks.

Excess heat can be just as bad. It leads to knocking, lack of power, burned or sticky valves, and burned spark plugs.

Trucks and Cars

The heat valve in cars and trucks is located between the carburetor and the intake manifold. A coil spring and counterweight can be seen, but the butterfly valve itself is concealed in the intake manifold.

When the engine is cold, the coil spring acts as a thermostat to close the valve. This routes the hot gases from the exhaust system to heat the incoming mixture.

As the engine and the surrounding air warms up, the spring relaxes, the counterweight shifts, and the butterfly valve moves. Then, the hot gases are routed directly to the tail pipe.

Since the valve shaft is exposed directly to the exhaust gases, there may be enough buildup of carbon, gum and corrosion to prevent rotation of the valve by the spring or counterweight. An occasional check of the condition of the valve prevents the undesirable effects of the wrong amount of heat.

When the engine is cold, check the valve by attempting to flip the counterweight by hand. It should move easily. If it doesn't, squirt solvent around the valve shaft and tap lightly with a hammer. Then, work back and forth until it moves easily. Normally, this procedure frees the valve. If it doesn't, then the valve action should be checked and repaired by a qualified mechanic.

The heat valves on most farm tractors are not thermostatically-controlled. Instead, the valve must be changed manually to the summer or winter setting. There are several reasons for this simpler arrangement.

Normally, tractor engines operate at relatively constant load and speed, as compared to truck and automobile engines. Additional heat is most important during the warm-up period, and most tractor operators expect to allow a few minutes for a tractor engine to warm up before placing it under full load.

In most cases, the necessary warm-up time is a relatively small percentage of the total time the tractor will be used before it is stopped again. Autos and trucks, however, are often used for short, quick trips and the driver expects to start as soon as the engine is running.

Simpler

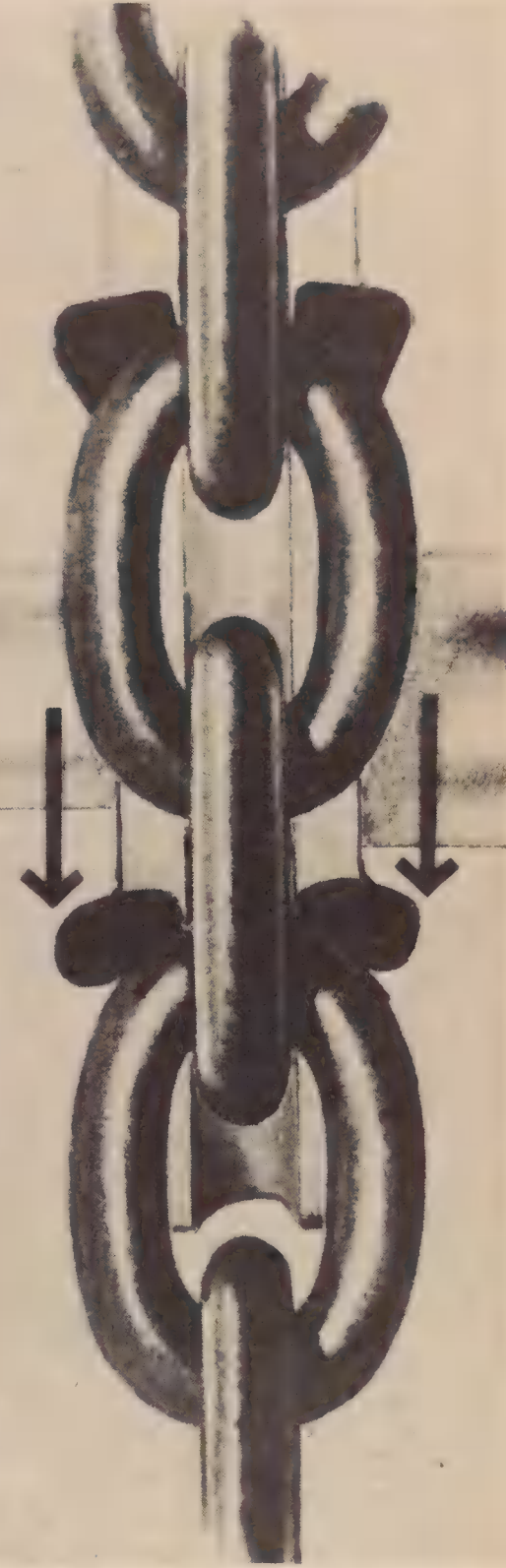
The simpler heat-control arrangement is also preferable for tractors because of the more difficult operating conditions. Truck and auto engines usually operate on relatively smooth roads. The engines are also mounted on some sort of shock-absorbing mounting pads.

Tractor engines, on the other hand, are fastened directly to the frame of the tractor (or may even serve as part of the tractor chassis). Additionally, the surfaces on which a tractor operates are usually much rougher. Thus, for tractor use, greater dependability is provided by the simpler, manual heat-control valve.

In general, the manual-control heat valve requires no maintenance or service except for changing it to the proper setting in the autumn and in the spring. Usually, only one bolt or nut need be removed to make the change.

Sometimes the position of the valve cannot be identified because the markings are obscured. In this case, the setting can be identified by the sound of the exhaust. When the valve is in the "hot," or winter-operating position, the exhaust has a muffled sound. When the valve is in the "cold," or summer position, the exhaust is much louder, almost as if the muffler were removed.

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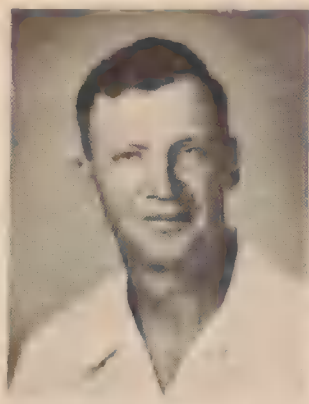
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Gayway Farm Notes

by HAROLD HAWLEY

LEASE, OWN OR HIRE?

Like many another farmer, we've been intrigued with the idea of leasing a larger tractor to speed up the plowing. We pull a set of 5 and a set of 6-bottom plows, and Bruce and I could get the 500 acres turned over by May 1 if —

By the time we stop to do some spraying, fertilizer spreading, fencing, milk a few cows twice a day, repair breakage that occurs, change points, shin pieces and landsides, fit and seed the alfalfa ground, and do a few other unexpected jobs, as well as to either lose time to weather or to wet spots, etc., we just somehow don't seem to average the 50-60 acres a day the charts say we should.

We've often wondered if the guy who figured out how many acres per hour you should plow at a given ground speed and with a given width tool, ever made allowance for finishing off the headlands or the triangular pieces, etc.

Good Week

Anyway, all things considered, we feel we have a good week if we plow 150 acres and we come nearer to 100 one week with another. All that adds up to is that we won't be ready to plant corn by May 1, unless we start earlier than usual or step up the pace.

To lease a big rig with plows would cost \$375 for the month for the tractor, plus \$3.50 per acre for the plows. We would furnish fuel and points, etc., the same as for our own equipment. The bigger rig should do about 300 of the 500 acres to be done, for a cost of \$1,425.

To buy the equipment, swapping in our 5-plow tractor and plows, would increase our investment by about \$9,000. Extra depreciation and use of money would involve some \$1,800.

To hire someone to custom-plow 100-125 acres... which is really what we are talking about... would cost \$800 to \$1,200.

In all three cases, the costs are legitimate expenses for income tax purposes.

It comes down to the fact that for a little extra money we would have the bigger tractor available all year-round. The only place we would really care would be on the forage harvester when we put in haylage. Otherwise, a 135-hp tractor is no better than a 75-hp rig to us.

Optimistic

On the optimistic assumption that we have an early spring, we could expect to do more of the plowing ourselves and cut the cost of the custom operator somewhat. We have decided to go this route and put some of the \$9,000 into some other equipment we think we may need worse or really where we think it will save us more time.

I'm sure that no two farms have exactly the same set of alternatives. Some might solve the whole thing easier and cheaper by simply putting someone else on his equipment to keep it running while he does chores. This simply hasn't worked out for us, but if it did, it would be our first choice.

Leasing certainly has a place on many farms and I'm sure we will be doing some figuring on it in future years. One big advantage going for it is that it enables a farmer to use a \$12,000-\$18,000 rig for a season before he buys it. He will pretty well know if it suits him after that kind of a trial.

PLANNED OBSOLESCENCE

Some long time ago, I reached the saturation point on Mr. Nader and his attacks on various businesses or practices, all in the name of the consumer and the general public. Even if Mr. Nader's motives weren't questionable, his procedures would be.

One must, however, concede that some things that are sold lack a whole lot of being worth the money, nor would they seem to represent the best a manufacturer could turn out. Recognizing competition and the desire to keep selling prices attractive, still far too much of what is offered either has a life far shorter than would seem reasonable, or is made so that it cannot be repaired, or the suppliers can't or won't stock simple parts. They will either sell you a new one or let you have a completely assembled \$15 unit which contains the \$2 part you need.

When Mr. Edison first came up with his light bulb, it had an understandably short life span. Nothing

seems to have changed all that much. We use 100-watt bulbs in our free stall area. Except for a couple that we run all night (don't ask me why) the rest probably get about 4 hours use daily. If we are lucky, they last a couple of weeks for maybe 60-70 hours of use.

A couple of times, we've bought the "long-lasting" kind. They seem to be about as good as the standard ones.

We use two hoses with nozzles to wash udders in the milking parlor. The regular nozzle can be expected to last 6-8 weeks before either the spring inside ceases to function to shut off the water when you release the pressure, or the little bracket and pin that hold the squeeze lever give out.

So naturally we turned to a "heavy duty commercial type" nozzle. The springs last as long as on the cheaper models. These are only minor irritations, but are illustrative of a whole long list of consumer items that seem to have a life span so short as to suggest they should be listed as perishable items.

Nothing we've ever written about has evoked so much mail as comments about buying a whole unit to get a small part. Apparently you've all had similar experiences and frustrations.

What to do about it? Something constructive, I hope. Like letters to the manufacturer. Letters of commendation and support to those outfits willing to do the right thing relative to parts for their products.

EXPECTED VS. ACTUAL

Bruce does our discing with an 18-foot rig while I try to keep the planter going. He picks stone as he discs and this naturally slows him up some, although except on land that we've just recently bought or rented we don't have all that many stones to pick. Anyway, the tables suggest that at 4 mph he should do about 7 acres per hour. Granted, we may get a little slippage on our slopes but we don't get near that much.

There must be some explanations. All our fields aren't floor-flat, one mile long, and regular. But we do

pick up the disc at the end and go back right beside the last pass, which is surely a lot faster than working the field in lanes. Then, too, our greasing and fueling operations take place within our total time in the field. I suspect the figures the tables show make no allowance for maintenance and fueling.

WHEN IN ROME

We have more and more difficulty finding real and meaningful differences between farm and non-farm families. There is, however, one difference that seems likely to last. When you visit your urban friends you will, in all probability, be received at the front door. If your house is typical of most farm homes, you will receive your guests at the back door and in through the kitchen.

It's a matter of custom, driveway and parking arrangements, and house construction. It's a perfectly natural thing that guests should come to the back door of the farmhouse. The only problem is that sometimes the back room gets a bit cluttered up with boots, coats, and other personal and business paraphernalia of the farm family. It sometimes is the part of the house which least portrays the good side of farm living!

NEW USE FOR AN OLD FRIEND

The need we have for a hay fork anymore makes us almost a stranger to a tool that used to be an important part of every workday. Of late, we have found a new use for the old fork.

We have a lot of land adjacent to an abandoned railroad right-of-way. Brush and trees grow on the right-of-way and the limbs reach over the fence. We've tried trimming the ends off the branches, but that lasts only a year or two. We have lately been cutting the stuff on the railroad side about two or three feet above ground and pushing it to fall on the railroad side. The old fork works swell for this, as well as for pitching limbs and brush across the fence.

GOVERNMENT STYLE

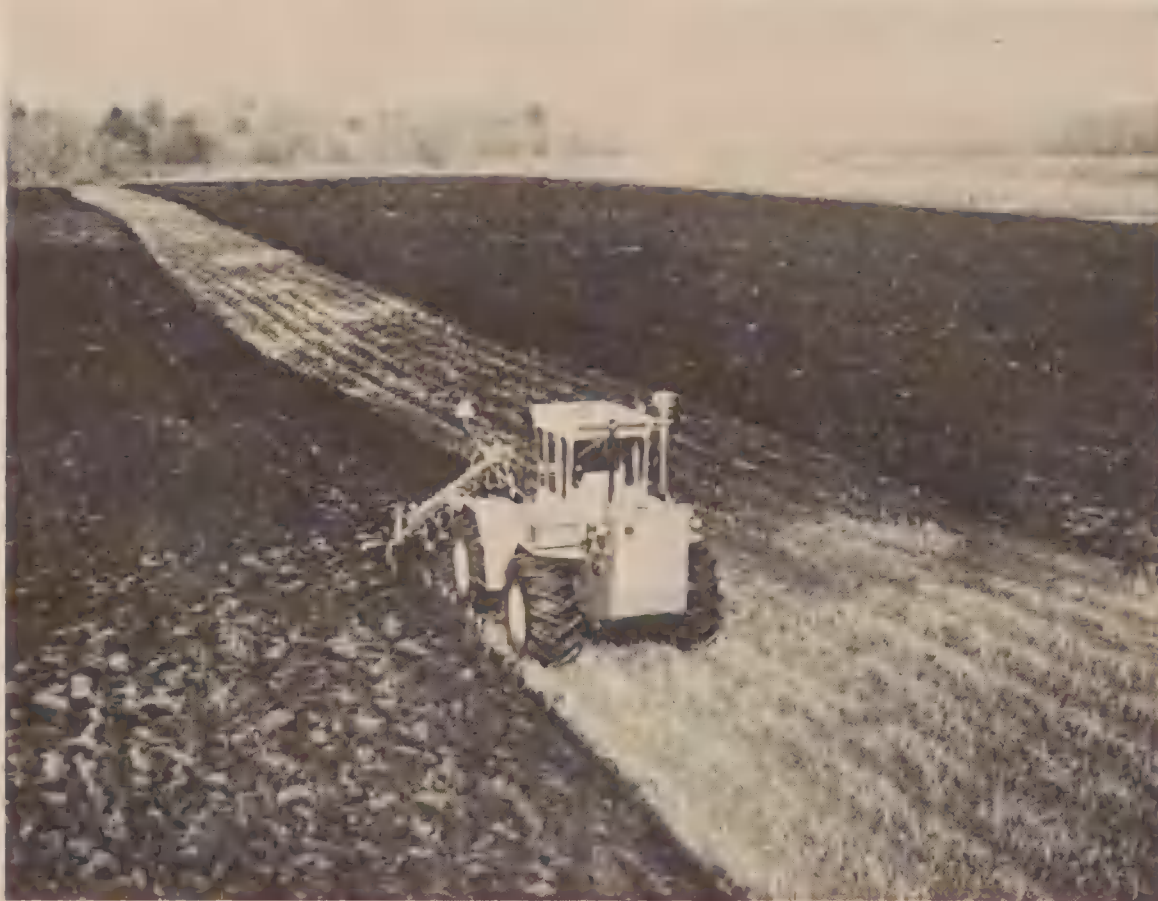
If we understand it correctly, the present agricultural program pays to idle some land to achieve some balance between production and needs. In case of good land and good commercial farms, the desired results may be obtained. But take a look at a less productive tract, or a farm not owned by a farmer, and let's see what happens.

The land might all be idled either with or without a program and government payments. Under the program at least the required acreage is grown — enough to retain a base. Under such conditions, more rather than less corn is grown. It seems that the desire to keep a base is the motivating force leading to various rental arrangements that keep the farm eligible for payments.

Land around here can normally be rented for \$8-\$10 per acre. With the grower (renter) eligible for payment for the diverted acreage, the amount of rent he can and does pay for the land he will crop doesn't necessarily reflect market value. In fact, some fantastic arrangements emerge with this sort of incentive.

American Agriculturist, April, 1972

When spring comes, many a farmer longs for a big rig like this to plow in a hurry. Harold Hawley, in the accompanying article, discusses whether to lease, own or hire some more plow power. Comments to him may be addressed to Weedsport, New York 13166.



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Mr. Dana Conrad, Wayland	\$85.07
(refund unfilled order)	
Mr. Geo. Wildpret, Manorville	6.76
(refund on book)	
Mrs. Arthur Haggerty, Theresa	9.95
(refund unfilled order)	
Mr. Frank J. Leone, Jamestown	30.15
(payment for damage)	
Mr. Donald Bruning, Akron	404.54
(payment for oats)	
Mr. I. M. Walker, Cambridge	7.95
(refund on book)	
Mrs. H. Neu, Prattsburg	11.73
(refund unfilled order)	

PENNSYLVANIA

Mr. Michael J. O'Boyle, Montrose	26.50
(refund on shirt)	
Mrs. Geo. Wilcox, Forksville	2.00
(refund on subscription)	
Mrs. E. E. Shroyer, Buffalo Mills	6.61
(refund unfilled order)	

NEW HAMPSHIRE

Mr. Norman P. Smith, Monroe	600.00
(insurance settlement)	

MASSACHUSETTS

Mrs. Clara B. Thompson, Sterling Jct.	2.58
(refund on book)	

CONNECTICUT

Mr. Chamberlain Ferry, Lyme	13.00
(refund on order)	

DEFROSTED

"A year ago we purchased a new chest freezer through a local store. A few months later, it stopped running and our food began to thaw. We saved what we could and threw the rest away. We called the store and they ordered a new freezer for us and told us to list what food we had lost. The total for food lost or spoiled plus locker costs came to \$38.87. We submitted the list to them but have heard nothing further. We have also contacted their regional office without results. The local manager has tried to help but doesn't seem able to pull the right strings. Can you help?"

Since the local manager had been unable to help, we wrote the district manager, who advised us that he was referring our letter to the person who would be issuing a check for this payment very soon. Our subscriber has written us:

"I feel I should write and thank you for the help you gave me. I received a check to cover our freezer loss. After almost a year of trying to collect, I felt that I was being given the runaround, but I didn't know where to turn until someone suggested I write the Service Bureau.

"I certainly appreciate your help and look forward to future issues of AMERICAN AGRICULTURIST and the Rural New Yorker."

WARRANTY

"I have a new car and I have been having some engine trouble. The car is still under warranty, but I seem unable to get satisfactory service on it. What do you suggest?"

Since you are a New York State resident and, if you have not already done so, we suggest you file a complaint with the Bureau of Consumer Frauds and Protection, Attention Assistant Attorney General James

American Agriculturist, April, 1972

Princiotta, 80 Centre Street, New York, New York. Give the date of purchase, the name of the dealer, the problem with the car and whether a complaint has been made to the dealer or manufacturer. The complaint will then be forwarded for appropriate action.

SOUR GRAPES!

"Last fall, two very well-dressed, refined-appearing men came to our house to buy grapes. They were driving a Cadillac and were from Buffalo. They wanted all the grapes we could let them have, and it turned out to be \$700 worth.

"My husband is disabled, not able to do any work at all, so we hired the grapes picked, drawn out, trucked to the road, and we rented the boxes. We called the men repeatedly, settled on the price, made arrangements for them to come, and they never appeared.

"They kept telling us that, when they could get a truck, they would come. As selling grapes is our only livelihood, it was a blow!

"We had a chance to sell the grapes, but we had promised these men so couldn't let them go. Everyone said we should have demanded a deposit, but they seemed like such trust-worthy men. Naturally, the whole business was extremely upsetting to my ill husband."

These folks should have had a written agreement with the men, as well as a deposit, and the agreement should have contained a cut-off date beyond which the grapes could have been sold to someone else.

FOUND

"I've been too ill to thank you before. I want you to know I have met my cousin, after not knowing her whereabouts for fifty-six years, through your Addresses Wanted column. Words can't express how thankful I am to you for your help.

"She and her husband drove up here to visit me from New Jersey."

CAN YOU HELP?

Mrs. Mildred McLellan of 185 Pleasant Street, Willimantic, Connecticut, is interested in finding old books, preferably before the turn of the century up until the 1930's. Dickens, Goldsmith, Twain, Cooper, Walter Scott and Alger are her favorite authors.

Mrs. Irving J. Call, 6535 Main Road, Stafford, New York, would like to locate a copy of the song "Sparkin' Peggy Jane."

Mr. Glenn Fellows, 4060 Cedar Vale Road, R. D. 2, Syracuse, New York, would like copies for violin of lancers or quadrilles that were danced before 1900.



Mr. Clarence Bullock of Belvidere, N.J. received \$3721.44 payment from New Jersey agent, George Ellingham (right). Mr. Bullock was unloading bales of hay when the truck rolled ahead throwing him to the ground. Three weeks and three days later he came home from the hospital still laid up from a fractured vertebra and severe neck sprain. He first took out N. A. policies in Sept. 1967, then added the Hospital & Home Recuperating income policy in Aug. 1970. Medical expense benefits paid were \$1420.00, weekly income benefit in and out of the hospital were \$2301.44.

Thank you for the prompt settlement of my recent claim—
By having the combination policies my medical bills were paid and I was happy to collect the weekly benefits for being disabled.
I recommend this North American protection to everyone.
Sincerely,
Clarence Bullock

A FRIEND'S NAME MAY BE IN THIS LIST.

Clair S. Dennis, Arkport, N.Y.	\$1346.34	Lloyd R. Caster, Sandy Creek, N.Y.	\$ 150.00
Knocked down by bull—inj. knee		Cranking tractor—inj. hand	
Earl L. Herring, Fillmore, N.Y.	810.04	Wanetta P. Veen, Otego, N.Y.	145.00
Tree fell—broke leg		Fell over a gate—bruised knee	
Genevieve Mack, Randolph, N.Y.	312.65	Robert W. Briggs, Hermon, N.Y.	462.36
Knocked down by cow—broke arm		Pinned by log—broke leg	
Helen Marshall, Genoa, N.Y.	523.94	Sol Rubin, Cobleskill, N.Y.	399.78
Crossing ditch, fell—broke leg		Slipped off tractor—broke toe	
John Lawrence, Falconer, N.Y.	614.00	Douglas J. Austin, Campbell, N.Y.	228.55
Fell from ladder—inj. back		Kicked by cow—inj. leg	
Robert J. Brewer, Elmira, N.Y.	1146.55	Eugene Sherwood, Cameron Mills, N.Y.	418.00
Garden tractor tipped—inj. back		Auto accident—broke leg	
Lawrence L. Peets, Ellenburg Ctr., N.Y.	253.46	Mary Abersmith, E. Marion, N.Y.	1520.00
Fell off tractor—broke finger		Fell down stairs—broke neck	
Murray Larsen, Cortland, N.Y.	1210.00	Deborah Breitenbach, Riverhead, N.Y.	1092.86
Saw kicked—cut hand		Horse reared—injured knee	
Stephen L. Ham, Davenport Ctr., N.Y.	278.70	John H. Amback, Callicoon Ctr., N.Y.	1436.42
Bike hit bale—broke collarbone		Fell from ladder—inj. back	
Neil Turner, Davenport, N.Y.	461.45	Frank C. Buchler, Owego, N.Y.	525.00
Slipped on stone—cut face		Tractor jackknifed—broke leg	
John Wittmeyer, Sardinia, N.Y.	2412.10	Percy R. Howe, Groton, N.Y.	208.56
Run over by wagon—head inj.		Hit by log—broke ankle	
Millard Irving, East Aurora, N.Y.	833.09	Robert W. Gillis, Argyle, N.Y.	621.53
Stuck with silo fork—infected hand		Fell from tractor—cut knee	
John P. Lauzon, Ft. Covington, N.Y.	321.42	Melvin C. Smith, Palmyra, N.Y.	1725.00
Knocked down by cow—inj. back		Slipped on silage—inj. back	
Bertha Bailey, Northville, N.Y.	968.00	Donald L. Bliet, Williamson, N.Y.	527.49
Auto accident—multi. injuries		Operating onion machine—cut hand	
Maynard Priestley, Elba, N.Y.	521.48	Nellie Lasher, Sodus, N.Y.	1251.42
Motorcycle accident—broke knee		Fell on step—broke hip	
Flora Hull, Batavia, N.Y.	887.63	Robert N. Bumbacher, Gainesville, N.Y.	272.58
Slipped on floor—broke arm		Conveyor slipped—broke finger	
Kenneth J. Powers, Cold Brook, N.Y.	1098.04	Lewin M. Wright, Dundee, N.Y.	107.57
Truck accident—broke leg		Using saw—cut finger	
Robert Bach, Carthage, N.Y.	630.00	Archie Lain, Millerton, Pa.	1495.00
Kicked by cow—injured back		Auto accident—broke pelvis	
Lenn Yancey, Lowville, N.Y.	1276.12	Ignatius Kwiatkoski, Wattsburg, Pa.	256.50
Pinned by cow—inj. back		Caught in stanchion—cut finger	
John Ostrowski, Copenhagen, N.Y.	296.56	Kathryn M. Gardner, Montrose, Pa.	340.00
Hit by jack handle—broke jaw		Run over by tractor—broke leg	
E. Barbara Tittsworth, Groveland, N.Y.	200.00	Rollo F. Davis, Bridgeton, N.J.	447.13
Jacket caught in PTO—inj. shoulder		Caught in silo unloader—inj. hand	
Thomas L. Screeder, Brookfield, N.Y.	276.42	Oswald Hoepfner, Belle Mead, N.J.	722.28
Hit by harrow—broke ankle		Thrown by horse—inj. hip	
Franklin C. Hunt, Sprakers, N.Y.	486.31	Ruth Wallace, Greenfield, Mass.	475.00
Ladder slipped—inj. shoulder		Slipped, fell—broke ankle	
Bonnie Grundman, Holcomb, N.Y.	233.57	Roger W. Berry, East Ryegate, Vt.	388.22
Can fell from shelf—broke foot		Fell off roof—broke arm	
Henry C. Horch, Jr., Albion, N.Y.	497.81	Wesley J. Miller, Jeffersonville, Vt.	934.00
Unplugging cutter—cut hand		Tractor acc.—inj. shoulder	

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NORTH AMERICAN ACCIDENT INSURANCE COMPANY

(In New York State)

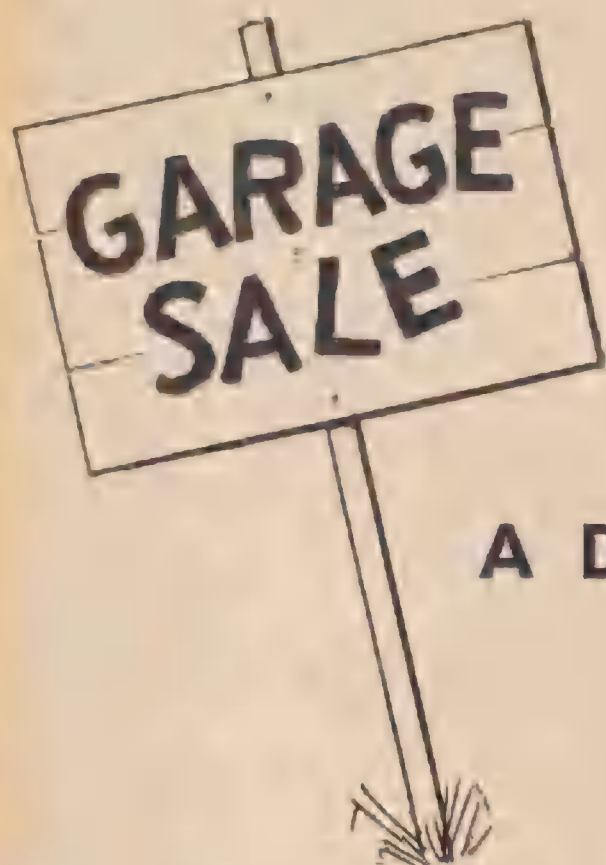
NORTH AMERICAN COMPANY

FOR LIFE AND HEALTH INSURANCE (In Other States)

GENERAL OFFICES: CHICAGO, ILLINOIS

SAVINGS BANK BUILDING

ITHACA, NEW YORK



A Do-It-Yourself Kit

by Dorothy L. Arno*

I HAD TO FIND OUT the hard way that the American Garage Sale is a do-it-yourself kit for selling your unwanted household goods for a profit without losing face and admitting you can use the money. And that it has replaced the country auction, second-hand man or French-type flea market.

Location is no problem. You can live in the country like we do, be part of suburbia, or have an apartment in the city. Any garage, lawn, cellar, living room, back yard or empty lot will do. Just pile up the merchandise, advertise, and paint and hang up a large sign with the words "Garage Sale." That's all there is to it.

But not for the grand potentate of my house who happens to be one of the leading experts in the field of selling to rural America. His reputation as a salesman with a background of grand openings, farm store sales and sales promotions is widely known in farming circles. To him, a sale is a form of open warfare, a game and a challenge!

So on a pleasant June day Cathy, my 14-year-old daughter, and I asked the general of farm store sales promotions for some advice on how to organize a garage sale. When we did, war was declared. Cathy and I were the army, and the enemy was the people who were going to come and buy our wares. And we were to conquer them with his new approach to a garage sale.

A battle plan was made. The sale would take place on Saturday, Sunday and Monday of Labor Day Weekend, three months away, and thereafter that Saturday in September was referred to as "D-Day" in the Arno household.

My country peddler says the first lesson to learn about any sale is that you can't sell from an empty wagon — or empty shelves. The second is to keep records of inventory, expenses

and time. So Cathy and I started our campaign of operations with a single objective in mind — collect saleable items. Thus while Cathy's friends were swimming that summer, you could find her almost any day helping me clean out the cellar and barns and listing every item we no longer needed.

The next 30 days we worked at the job of cleaning, repairing, painting, pressing, and counting our gold nuggets from the junk pile. Merchandise that had outlived its usefulness in our house, such as Mason jars, tables, benches, shoes, dressers, beds, stoves, bathroom fixtures, rugs, lamps — anything and everything was inspected, cleaned and counted.

From the old shed it was amusing to see the things we found in boxes and crates that we had long forgotten about. Articles we would never use again — 18 lovely dolls we put away after Cathy passed through the portals of her toyland, never to return again; blankets and sheets for single beds; an old-fashioned wash stand that my mother had owned and we used when first married. The list of saleable goods filled two note pads.

The garage was half filled by August 4, and I had to park my car outside. Three of our neighbors who heard about the sale

asked if they could bring some things over and put them up for sale. After a top-level meeting of the general staff it was decided that, since this was a summer money project for Cathy and me, they could participate with a 20% commission charge on their sales. Well, you'd think we were a group of un-Americans when I made our terms known. Two of them were insulted to think we would ask for a commission, and the third never answered — she just hung up the phone.

Sitting on my front porch stewing because of my neighbors' response, I watched a large truck pull into the driveway. A burly driver shouted, "Do the Arnos live here? This load of junk is for them." Like a fresh breeze to a sailing ship, Cathy and I helped unload a truck of antiques and housewares from my friend, Joan Blackwell. Her note read, "Sell it and send me 80% of the purchase price." The garage was packed solid when we finished.

It Pays To Advertise

Phase 3 of the sale took place August 15, D-Day minus fourteen. It was time to advertise. In the verse of my husband, George Washington Arno (his real name),

"He who shouts into the well
About the things he has to sell
Will never make as many dollars
As he who climbs a tree and hollers."

And did we holler about the garage sale! A simple classified ad ran in 19 daily and weekly newspapers, covering a 70-mile radius. It read:

Garage sale. Labor Day weekend, Saturday, Sunday, Monday, 9 a.m. to 6 p.m. Antiques, bric-a-brac, dolls, bathroom fixtures, tools, furniture. Across the road from Delaware Valley Regional High School. Dorothy and Cathy Arno, Frenchtown, N.J.

Thursday morning, two days before the sale, Cathy and I started the fourth stage of the battle plan — laying out the bric-a-brac and small merchandise on 8'x4' plywood tables and pricing each item. Friday the heavy household equipment and

furniture were all arranged in straight rows and priced. Cathy and I never dreamed we had collected so much stuff.

But things were going too smoothly; something had to happen, and it did. The commanding general came home from a two-day business trip. He took one look at the prices we had marked, and the roar of the lion was as a squeaking mouse in comparison!

"Women price merchandise at what they'd like to pay for it, not what it's worth," he shouted. "We are going to increase the sale price by multiplying your prices by four!" The super salesman had spoken, and his command was obeyed. With tears in our eyes and saying he was crazy, we went about our unwanted job of increasing the prices. Cathy and I had put on each piece. By flashlight the last tag was changed at 11:30 Friday night. The sale was to start in nine hours.

Sale day or D-Day started earlier than we expected. They hit first! At 7:30 a.m. the dogs were barking, and a convoy of motor vehicles was coming down the driveway. Car doors slamming and people greeting each other in loud voices pushed us out of bed with a jolt. Looking out of the upstairs bedroom window, we saw the yard and driveway jammed with station wagons, pickup trucks, cars and people. All the vehicles had strange names painted on them, such as Cobweb Antique Shop, Covered Bridge Antiques, Lots of Time Shop, or The 1840 House. They were antique dealers heading for a farm and household auction 25 miles north of us.

As George hurried down to meet the early arrivals, Cathy and I hurriedly dressed to join him. The dealers knew what they wanted and bought it. It was 9 a.m. before the last dealer drove out of the yard.

Trying to regain my composure, I reached up to smooth my hair, only to find the curlers still there! With all the excitement, I had forgotten to take them out when I got out of bed. Sale or no sale, I headed for the house and a personal repair job.

Tighten The Sale

In the meantime Cathy received the battle cry from her Dad, "Tighten the sale." We lived with that expression for the next three days. It means to fill in all empty spots where something has been removed for a purchase. By "tightening the sale," they had the display looking as fresh as it did the night before. I was amazed to see three tables had been taken down, implying that we started off with a bang.

The second wave hit us at 9:30, and a steady flow of buyers kept arriving throughout the day. Old ladies, newlyweds, collectors, a senator's wife, a famous author — all sorts of people came to buy. Some had traveled 70

(Continued on page 55)



Bonnie, the Arno Dalmatian, stands behind Dorothy, as people look over the merchandise.

*Frenchtown, N. J.

BIG! EXTRA JUICY LUSCIOUS! BLUEBERRIES

NEXT 30 DAYS ONLY!
29¢ A PLANT
 (in lots of 100)
 100 for \$ 29.00
 250 for 65.00
 5 for \$2.25 25 for \$ 8.50 500 for 110.00
 10 for 4.25 100 for 16.00 1000 for 195.00

WONDERFUL FOR
 • PIES • FRESH FRUIT DISHES
 • CAKES • PRESERVES

EASY TO GROW! Mix plenty of peat moss with soil in planting holes for loose texture and organic richness. Plant 3-4 ft. apart.

Satisfaction Guaranteed. You must be delighted or notify us within 2 weeks after you receive plants and we'll send a refund or free replacement for any unsatisfactory plants.

MAIL COUPON WITHIN 30 DAYS FOR IMMEDIATE DELIVERY

STERN'S NURSERIES Dept. M-2, Geneva, N. Y. 14456

Please send my BLUEBERRY plants guaranteed as stated above. Cat. No. 72207.

☐ Check or Money Order enclosed. Or charge my account with
☐ Uni-Card, ☐ American Express, ☐ Carte Blanche,
☐ BankAmericard, ☐ Master Charge.

☐ 5 for \$ 2.25 Specify Acct. # _____

☐ 10 for 4.25 Name _____

☐ 25 for 8.50 Address _____

☐ 50 for 16.00 _____

☐ 100 for 29.00 _____

☐ 250 for 65.00 City _____ State _____ Zip _____

☐ 500 for 110.00 Add 10% postage & packing (70c minimum).

☐ 1000 for 195.00 N.Y.S. Residents add 4% (plus local) Sales Tax.

Abundant Berry Crops All Summer Long

Every bush loaded with huge grape-like clusters of extra juicy berries. Plants last a lifetime, grow 5-6 feet tall and produce heavier crops each succeeding year.

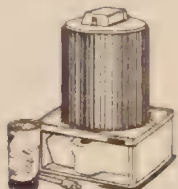
10 VARIETIES AVAILABLE

We recommend planting 2 or more varieties for cross-pollination to insure bountiful crops. Unless you specify otherwise, we'll ship sturdy, well-rooted 1-year-old assortment of June, Rancocas (early), Concord, Atlantic, Pemberton, Rubel, Berkeley (mid-season), Jersey, Burlington, Coville (late).

Stern's Nurseries

Dept. M-2, Geneva, N. Y. 14456

Spring Fresh
DRINKING WATER
Pure as rain



Convert tap water to pure, delicious spring fresh drinking water for pennies a gallon.

Aquaspring Purifier-distiller removes chorine, fluoride, iron, pesticides, sulfates, sludge, salt, alum, calcium and other impurities. Eliminates bad tastes, improves beverage and food flavors.

Plugs in like a toaster—no plumbing hook ups whatever. Take it wherever you go. UL approved. Write now for free information.

UNITED VITO-WAY

P. O. Box 1028 Dept. AA-4

Albany, Oregon 97321

Tel: (503) 926-3581

Tiller Users!



If the tiller you've been using has its revolving blades in **FRONT** and **NO** power to the wheels (See 'TORTURE!' above left), you won't ever be happy with it again once you try the **TROY-BILT® Roto Tiller-Power Composter** which has its revolving blades in the **REAR** and **POWER DRIVEN WHEELS** — and is **SO EASY** to use you guide it with just **ONE HAND!** (See 'JOY' above right). You do **NOT** have to walk behind it, leaving footprints! It does **NOT** shake you half to death! It leaves **NO** wheelmarks! There's **NO** unbearable tangling! The **TROY-BILT®** is now in its 11th great year. **SO** if you want tilling to be a **JOY** instead of **TORTURE** from now on, please clip this ad now and send today for the whole story of this wonderfully different and better design in tillers! We'll send complete details, including prices and **OFF-SEASON SAVINGS** now in effect for a limited time! Just ask for **FREE BOOKLET**.

TROY-BILT® Roto Tiller-Power Composters
 Dept. 2714
 102nd St. & Ninth Ave., Troy, N.Y. 12180

Gain A Year—PLANT NOW

STERN'S "PLUM SIZE" STRAWBERRIES

Actually as big as a plum!

12 PLANTS

\$2.25

12 for \$2.25
 25 for 3.95
 50 for 6.75
 100 for 11.00
 250 for 24.00
 500 for 39.00
 1,000 for 59.00

ONLY 11¢ A PLANT
 IN LOTS OF 100

Each plant yields 6 pints a year!

Thousands of Giant Berries

Most amazing strawberry! **NOW READY!** Stern's miracle "EMPIRE"! They are enormous producers — each plant averages 6 pints a year. They resist drought — actually thrive in hot dry weather. Magnificent flavor! Big, firm, sweet, extra juicy, red!

Our Finest Grade Plants

Official! Largest No. 1 size — the best and biggest grade. Strong, well developed crowns and roots withstand severe winter conditions.

Easy to Grow! Winter-Hardy!
Satisfaction Guaranteed

You must be delighted, or notify us within 1 month after you receive plants and we'll send a refund or free replacement for any unsatisfactory plants. No need to return plants, ever!

Stern's Nurseries

Dept. M-2 Geneva, N.Y. 14456

Order Now For Crops Next Spring! More crops year after year. Mail Coupon Today! If you plant this Spring, you'll have your first crop of berries in Spring 1973.

MAIL COUPON WITHIN 30 DAYS FOR SPRING PLANTING!

STERN'S NURSERIES, Dept. M-2, Geneva, N.Y. 14456

Please send my "Plum-Size" Strawberry plants guaranteed as stated above. Cat. No. 09901.

☐ Check or Money Order enclosed. Or charge my account with
☐ Uni-Card, ☐ American Express, ☐ Carte Blanche,
☐ BankAmericard ☐ Master Charge.

☐ 12 for \$2.25 Specify Acct. # _____

☐ 25 for 3.95 Name _____

☐ 50 for 6.75 Address _____

☐ 100 for 11.00 _____

☐ 250 for 24.00 City _____ State _____ Zip _____

☐ 500 for 39.00 Add 10% postage & packing (70c minimum).

☐ 1,000 for 59.00 N.Y.S. Residents add 4% (plus local) Sales Tax.

Rural Mail Shop

WAREHOUSE SUPPLY! LAST CHANCE ON THIS EARTH!
 Nobody else makes these shoes anymore. Send at once!

U.S. NAVY LAST

in Du Pont's

CORFAM®
 non-leather poromeric

with
Genuine Leather Sole

Straight Rubber Heel

Goodyear Welt



YOUR FINAL CHANCE,
 because of an unsold
FORGOTTEN WAREHOUSE

full of "Corfam®", forgotten when Du Pont shut down their "Corfam®" production. So now you can have:

2 pairs for only 17.50
WHILE THEY LAST!

	5%	6%	7%	8%	9%	10%	11%	12%	13%
A									
B									
C									
D									
E									
EEE									

IS YOUR SIZE ON THIS CHART?

The One — The Only — "CORFAM®"

You have seen it advertised not long ago in the finest brands in the country, at \$15 to \$30 to \$50 a PAIR! NOW IT'S PHASED OUT LIKE PLASTER WALLS AND COPPER PIPES, victim of today's high cost of quality.

Genuine leather sole. Rubber heel. Beautifully made. U.S. Navy Last.

WHILE THEY LAST, ORDER 2 PAIRS, 4 PAIRS, ORDER A LIFETIME SUPPLY!

You'll Never Get a Better Deal! **2 PAIR FOR ONLY 17.50**

WE HAD TO LIQUIDATE 10,000 PAIRS found in a New York warehouse. Manufactured two years ago to sell for \$12.95 a pair, they were the last 10,000 pair on Earth! Public interest was so strong that we are now getting more. But hurry. The "Corfam®" is running out!

OXFORD STYLE
 with laces
 in BLACK or ANTIQUE BROWN

BE READY, FRIEND, TO BE DELIGHTED!!

Haband Company is one of America's very largest shoe retailers selling hundreds of thousands of pairs of men's New Price Shoes direct to men in every city and town in America and we sell exclusively by U.S. Mail. Send us your check and we'll be delighted to introduce ourselves to you by sending these Corfam Navy Last Shoes **ON APPROVAL FOR YOUR AT-HOME INSPECTION.**

HABAND

Operating by U.S. Mail since 1925.

NAVY LAST SHOES 2 Pairs for Only 17.50

HABAND COMPANY
 265 N. 9 St. Dept. AA
 Paterson, N.J. 07508

Sirs: Please rush my "Corfam®" U.S. Navy Last Shoes at once. My remittance of \$_____ is enclosed. If I do not choose to wear the shoes I may return them for full refund of my remittance.

706-42

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 truck farm trailer
FREE CATALOG
TREMENDOUS SAVINGS
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GIFT FOR TRYING THIS

Here's your chance to get a \$4.95 truss without cost if you have a reducible rupture. All you do is try a doctor's invention for rupture in the privacy of your own home on our 30-day trial plan. Easy and comfortable to wear. Has no leg straps - no elastic belts - or leather bands. Holds rupture up and in. You can't lose... if you are not entirely satisfied with the invention - return it, but be sure to keep the \$4.95 Home Comfort Truss for your trouble. It's our gift to you for making the trial. If you are ruptured, write today for trial offer.

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U.S. Dept. of Agriculture
NEW! HANDSOME, FAST-GROWING
HEDGE OR TALL SCREEN

**aids erosion
control...
attracts birds,
small game**



LOW HEDGE PRICES!
ONLY **75¢** EACH
in lots of 100

Stern's Sub-Zero Hardy
CARDINAL AUTUMN OLIVE
(*Elaeagnus umbellata*, Cardinal)

Useful, decorative, low-cost farm hedge.

Fall and winter, covers itself with thousands of bright crimson berries irresistible to songbirds, 23 bird families, small game (fine for jelly, too). Invaluable for infertile areas; actually pays for itself by adding nitrogen to the soil; encourages grass and other soil-protecting plants to grow right up to its feet.

3-season color; fast-growing; disease-resistant; vigorous; super-hardy: Silver-green foliage; fragrant tiny yellow spring flowers. Zooms up to 10'-15' in any well drained soil, even poor soil. Thrives at elevations to 9000', temperatures to 30° below zero! Grows thicker, lovelier each year.

Perfect privacy fence or screen; ideal for pond or field borders, rocky slopes, steep banks, narrow field corners, seashore areas.

Plant 4'-6' apart for tall-growing 10'-15' hedgerow, to beautify, to keep out trespassers. Two rows, 10' apart, make ideal windbreak or snow fence. Can be trimmed to low 4'-6' hedge, if desired.

Guaranteed: You must be delighted, or notify us within 1 month after you receive order, and we'll send a refund or free replacement. Easy planting directions enclosed.

Stern's Nurseries Field M-2, Geneva, N.Y. 14456

MAIL NO-RISK COUPON TODAY!

STERN'S NURSERIES, Field M-2, Geneva, N.Y. 14456
Please ship sturdy, husky 18"-24" Cardinal Autumn Olive plants (Catalog #48553) as guaranteed.

Low hedgerow prices:

☐ 1 for \$2.00 ☐ 10 for \$11.00 ☐ 100 for \$ 75.00
☐ 3 for \$4.50 ☐ 25 for \$22.00 ☐ 250 for \$150.00
☐ 5 for \$6.50 ☐ 50 for \$40.00 ☐ 500 for \$275.00

☐ Check or Money Order enclosed. Or... charge my account with ☐ Uni-Card, ☐ American Express, ☐ Carte Blanche, ☐ BankAmericard, ☐ Master Charge.

Specify Acct. # _____

Name _____

Address _____

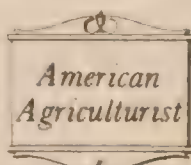
City _____

State _____ Zip _____

Add 10% postage & packing (70¢ minimum). N.Y.S. residents add 4% (plus local) Sales Tax.

MODEL #800 AIR SAND BLASTER
Complete, ready to use you hours the first time you use it. Removes rust, scale, carbon, paint and chemicals from all materials. Reaches areas otherwise impossible. Uses ordinary building sand. Air pressure 90 to 200 PSI.
Shipped complete with FREE face shield, hose and extra nozzles.
REG. PRICE \$69.95
YOUR PRICE \$42.50
LANDMESSER TOOLS COMPANY
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\$4.00 giant 335 page LANDMESSER TOOLS CATALOGUE shipped FREE with order. CHECK WITH ORDER - FREIGHT PREPAID.

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SUBSCRIPTION
RENEWED



SAVE UP TO 40%

FOR THE NEXT 30 DAYS ONLY

Stern's Famous INCH-THICK asparagus

A delicious, natural way to enjoy a lifetime of multi-vitamin and mineral nutrition.

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Bring SPRING Into Your Home

by Dorothy Welty Thomas

PART TWO

If a small child gathers dandelions and thrusts them into your hand, do not scorn them. Arranged with a few green leaves, or a few sprigs of blue violet, they make a bright spot on your window sill that will be a joy to the eye and an uplift to the spirit. The dandelions will only last a day, but what of it? Get some more tomorrow.

I knew a woman who worked at the restoration of Williamsburg, Virginia, who said that while spring comes gradually in Virginia, it comes like an explosion in the Northeast. This is certainly true. By the middle of April in an early spring, and by May in a later one, it isn't what you will bring into the house, but how you will arrange it. Depending on the season, one flower follows another in quick succession and sometimes by twos and threes.

Tulips and Lilacs

All flowers with wood stems, such as lilacs, keep better if you hammer the stem ends to a pulp so they can drink more water. Tulips and lilacs are a nice combination, but may we suggest that you be selective, even reserved, about the color combinations. An arrangement of lavender-blue lilacs and dark tulips, commonly called "black," is elegant. Also, yellow tulips and branches with yellow or white flowers, such as forsythia, clove, flowering plum or shad, are lovely together.

Later, fruit branches such as pear are nice. You may not want to cut fruit bearing trees, but sometimes there is an old tree that does not bear well or which has not been sprayed, from which you may cut lavishly. Cut fruit tree branches up to five feet in length and place in a stone jar on the floor. You don't even need anything with them, but be sure there are good, interesting lines.

I once knew a teacher who decorated the school with arrangements of wild plum on the eve of a May Day celebration. She stood most of them on the floor and had one beautiful one on her desk. After the plum and pear branches are gone, you may have redbud or Judas tree, apple blossoms and dogwood. Each comes at a different time in various parts of the Northeast. It might be a good idea to jot down the dates each one blooms for reference another year. Then you will know what you can count on and plan your groupings ahead.

If your arrangement won't stand the way you want it to, put a quantity of crushed pine foliage into the container first. This will hold the

Pussy willows, daffodils and mahonia in a tall arrangement which might even be used as a door stop.



stems. It is a bit hard to force woody stems into a needlepoint holder and also hard to put the holder in the bottom of a tall, narrow jug. There is a product known as "Oasis" sold by florists which you may use several times, but it is expensive. Needlepoint holders may be scrubbed clean with a brush and used indefinitely.

Tulips and Apple Blossoms

Try pink and white tulips with apple blossoms if you can get them together. One time I decorated for a women's luncheon with little Japanese gardens on each table. A friend whose son had a florist business cut some apple branches for us and held them in the cooler until the date of the luncheon. Otherwise they would have bloomed and gone.

Small branches of apple blossoms were placed in tiny bowls with tiny needlepoint holders and water added to keep them fresh. These were placed beside aluminum foil "streams," crossed by Chinese red construction paper bridges. Bits of evergreen made tiny bushes and gave contrast. They really were beautiful, and the ladies "oh-ed and ah-ed."

When arranging several stems of flowers, it is usually well to cut them in several different lengths. Put your largest bloom near the base of the arrangement and the buds or smaller flowers with longer stems next to the top. Bouquets may take the shape of a pyramid, a fan, an oval or just a few lines, a la Japanese. In the latter, care should be taken to adjust each stem carefully in relation to the others to make a graceful, well-proportioned design.

SPRING SONG

by Lois O'Connor

Spring winds blowing
Spring on the wing,
Earth wakes to greening,
Up heart, sing.



Garden Talk

by George and Katy Abraham

Non-Toxic Bug Controls

The big thing today is "health foods," and along with it is the clamor for non-toxic means of killing insects. Some of the suggestions border on hysteria; some are based on common sense. There are many legends and old wives' tales about things that repel insects. Many do not check out scientifically, but still there are some which you can count on to work.

In our own greenhouse and landscape work, we take the middle road and use both chemical and non-chemical control for bugs and blights. For the benefit of home gardeners who feel we have too many harmful chemicals in our environment, we will pass on tested tips for non-toxic insect control.

Red Spider Mite — This one is tough to kill, even with chemicals. A simple "home cure" for mites on ornamentals and fruit trees consists of adding buttermilk at the rate of ½ cup (about 6 tablespoons) and 4 cups of wheat flour to 5 gallons of water. A recent issue of the **Indiana Nut Growers Assn. Bulletin** states that a buttermilk-and-wheat-flour mixture destroys a very high percentage of mobile forms of mites and mite eggs as well.

Repelling Rabbits — The latest issue of **North American Fruit Explorers Magazine** states that liver on raspberries and fruit trees will discourage rabbits. Here's how nurserymen recommend using it. Put a chunk of liver in a bucket of hot water and let it set for 30 minutes. Then pour this into a hand sprayer and spray it on brambles and tree trunks. Rabbits do not touch the stems, even if snow is on the ground.

You have to strain the liquid when pouring it into the tank (you may also have to hold your nose, as it doesn't smell too heavenly!). Incidentally, blood meal scattered in the garden repels rabbits in summer. If you don't like the liver treatment, put guards around your trees, using aluminum foil, wire mesh or similar barriers.

Red Hot Peppers For Cats And Dogs — Locating a good cat and dog repellent is a hard job. Hot peppers seem to be an ideal antidote for these animals. Take the red hot peppers and run them through a blender. Add an equal amount of water and a teaspoon of detergent, since it helps make the mixture stick to plant leaves. Spray the concoction on the plants. Cats and dogs are highly sensitive to the red peppers.

Also, ground-up garlic has good insect-repelling qualities, plus being a dog and cat repellent. Garlic has antibiotic properties (allicin), and the Russians have used garlic extract for treating gout, rheumatism, and for dissolving kidney stones.

All members of the onion family

(leeks, garlic and onions) are good for human health by helping lower cholesterol in the body. So it's a good idea to raise garlic as a health food and an animal repellent. If you eat enough of it, it'll repel people, too! One gardener we know presses cloves of garlic in the soil close to the trunks of fruit trees to repel borers and aphids.

Slugs and Snails — The prescribed cure for these night marauders has been a poisonous bait. Recently, a doctor discovered that snails have a sweet tooth (each snail has about 7,000 teeth) for beer. Ever since he started putting stale beer in shallow pans in his garden, gardeners everywhere have used this simple trick to trap thousands of snails.

The slugs get tipsy and drown. A friend of mine caught nearly 200 snails in one night, using stale beer. Tests by the U.S.D.A. verify the beer-baiting idea for catching slugs.

Aluminum Foils Aphids — If you want to foil aphids, use aluminum foil around melons, rose bushes, beans, gladiolus, etc., to repel this pest. The foil, reflecting the sky's ultra violet rays, confuses the plant lice and makes them fly away (probably to your neighbor's unprotected garden).

Soap For Fungus Gnats — Those tiny black flies buzzing around your house plants are fungus gnats. Sometimes they are so thick that they get into your hair. You can check them by mixing up a solution of fels naptha soap and pouring a little on the soil around your plants. The soap kills the larvae and some eggs, thus preventing emergence of adults.

There are dozens of other "home remedies," which may or may not work. We cannot overlook the many biological controls there are for ladybugs, praying mantis, trichogramma (a tiny microscopic natural enemy) and other natural parasites.

We cannot completely abandon

VISITING

with

Home Editor Augusta Chapman

I hope when our April issue arrives at your home that spring will already be there. If you are anything like I am, spring brings a lift to your spirit which no other season of the year can duplicate.

It's so good to have the grass getting green, the leaves coming out on the trees, and to hear redwing blackbirds whistling in the nearby marsh! I enjoy each day and watch for every new arrival of bird and flower, as spring advances. Aren't you glad you live in the country? A happy spring season to each of you.

Balance of Nature Never Was

It has been jokingly said that if a speaker loses his train of thought these days and forgets what comes next, the thing to do is say "ecology" several times. He'll get such a round of applause that he will have time to find the place in his notes and continue, without anyone knowing he has stumbled!

Along the ecological line, we hear much about disturbing the "balance of nature" and shudder at the dire predictions for future years when our grandchildren and great-grandchildren will have inherited the land.

I was interested in Dr. Norman E. Borlaug's remarks on this subject. Dr. Borlaug recently won the Nobel Peace Prize for his wheat breeding program to help feed underdeveloped countries.

Dr. Borlaug said that as an ecologist, forester and scientist, he had never observed nature being in balance with anything! Rather, he said, it had been his experience that

chemical control methods, but we do have to get over the notion that every bug we see is bad. Next time you see an insect, don't reach for the spray gun. It may be a good bug working for you!

nature dealt in one excess after another — too much rain, too little rain, drought, forest fires, volcanic eruptions, disease, starvation, and a host of other violent actions. Observations during his world travels have convinced him that any "balance" on the part of nature is simply another fairy tale.

Maybe things aren't quite as hopeless as some people would have us believe.

You Might Like This

Recently I received a very attractive booklet which I think you might enjoy and find useful. "Window Shade Parade" gives decorating hints and practical solutions to window problems for every room in the house. In color, it analyzes all types of windows and suggests treatments for each type.

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1972 INSTITUTE

"Children — Who Cares and How?" is the theme for the 12th annual Institute of the New York State College of Human Ecology at Cornell University, Ithaca, N. Y., beginning at 9:30 a.m. on April 25, in the Alice Statler Auditorium.

In the morning, panelists Jacob K. Javits, U. S. Senator; Constance E. Cook, N. Y. State Assemblywoman, and Alice S. King, Cooperative Extension Agent in Onondaga County, will give their views on children and those who care about them.

Discussion groups on various aspects of child care, film festival, and exhibits in Barton Hall are features of the afternoon program. The event is open to the public.



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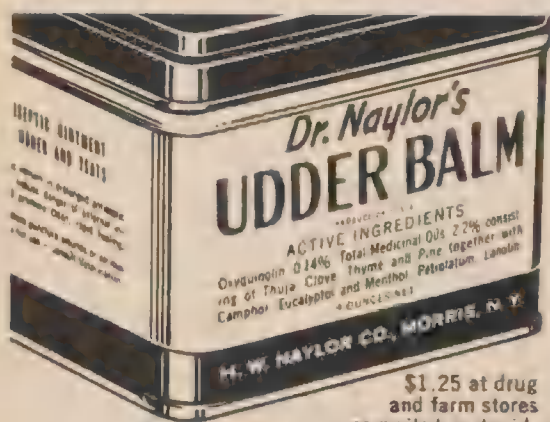
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A few highlights of our Pacific Northwest are the Rim Drive around Crater Lake, snowcapped Mt. Hood, the beautiful Columbia River Gorge drive with stops at Bonneville Dam and Multnomah Falls, majestic Mt. Rainier, and Glacier National Park with its famous alpine scenery and "Going to the Sun Highway," one of the world's outstanding scenic roads.

The Canadian portion of our tour includes Victoria with its world-famous Butchart Gardens, the beautiful city of Vancouver and magnificent Jasper National Park; also, Lake Louise which is probably the most beautiful of all Rocky Mountain lakes, Moraine Lake and Valley of Ten Peaks, Banff and Waterton National Parks.

Send for the illustrated folder, for we have only been able to mention a few of the beautiful and interesting places included on the itinerary. Plan now to go with us and make your reservation soon. Our

group will be limited to the capacity of one motorcoach.

Popular Tour

For the past three years, our Heart o' the West Holiday has drawn a capacity crowd, and we don't believe a single person has been disappointed in any aspect of the trip. It is an air and motorcoach tour (with rail travel optional), packed with magnificent scenery and happy adventures. Following are just a few of the things we will see and do.

First comes the Black Hills section of South Dakota with its many attractions — Needles Highway, Mount Rushmore, the Crazy Horse Memorial site, a ride on the Black Hills Central narrow gauge railroad, Wind Cave, the Homestake Mine at Lead, and the famous Passion Play at Spearfish.

On our way to Yellowstone National Park, we visit Buffalo Bill Museum at Cody, Wyoming. Entering the park, we follow the Grand Canyon of the Yellowstone to Mammoth, enjoy a stagecoach ride at Roosevelt Dude Ranch, and continue to Old Faithful for overnight. The majestic Grand Tetons and beautiful Jackson Lake in Grand Teton National Park are the next day's attractions.

After a sightseeing tour of historic Salt Lake City, we spend a day in Bryce Canyon National Park. Then comes inspiring Grand Canyon, Mesa Verde National Park and the Royal Gorge.

The beautiful mountain cities of Colorado Springs and Denver will be featured next. We'll travel to the top of Pike's Peak and also see Cheyenne Mountain, Will Rogers Shrine, Garden of the Gods, and the Air Force Academy.

Gordon Conklin, Editor
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We think you will find it impossible to duplicate our Heart o' the West Holiday. There are many, many places of natural beauty and historic interest we've not been able to mention. Have you been promising yourself a trip west? Make that promise come true, as you travel with our friendly AMERICAN AGRICULTURIST tour group.

See Our 49th State

Trips to Alaska have always been among our most popular tours, and often people have said, "I enjoyed that vacation so much that some day I'm going again!" Why not make that second trip this year? Or perhaps you've never been to Alaska — there's no nicer way in the world to go than with AMERICAN AGRICULTURIST and Travel Service Bureau! Plan to join us on August 6.

The place we visit first is Sitka, where the Russian influence is very much in evidence. Next comes Juneau, Alaska's capital, and from here we cruise the beautiful Inside Passage to Skagway. From Skagway we follow the "Trail of '98" on the famous narrow gauge train of the White Pass and Yukon Route to Whitehorse. Our train takes us past Lake Bennett and Carcross.

During our stay in Fairbanks, we'll cruise the Tanana River aboard the only passenger sternwheeler operating in Alaskan waters and visit an authentic Indian summer camp. Our stay in Mt. McKinley National Park is an experience we'll never forget! We're served a filling sourdough breakfast before leaving for Eielson's Visiting Center with its unsurpassed views of Mt. McKinley, highest peak on the North American Continent.

Anchorage, Alaska's largest city, is our next stop. From here we drive to Portage Glacier and visit Matanuska Valley, one of our nation's best agricultural areas. It's famous for 41-pound cabbages, 7-pound turnips and giant potatoes and carrots.

At Anchorage we're given a wonderful opportunity to take an optional side trip to Kotzebue and Nome. Kotzebue is the second largest Eskimo village in all Alaska, and on our way there, we have the unique experience of crossing the Arctic Circle.

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Each year we think this may be the last time we can offer our readers a Delta Queen Cruise — better come with us in 1972! The dates are June 28 to July 5, and we will cruise the Ohio and Tennessee Rivers, stopping at many interesting places along the way. Enjoy life on the river much the same way Mark Twain did.

FASHION COMMENT

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by Mildred Goff

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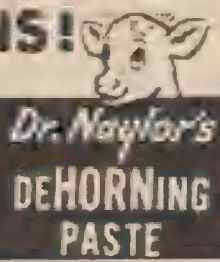
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molded salads

by Alberta Shackelton

Colorful and delicious molded salads can bring a touch of spring to winter-weary menus for family, guests and those ever popular dish-to-pass meals. These "make-aheads" — the day before or just several hours ahead of serving with the help of freezer or ice cubes — are a joy to the cook.

Molds — Plain and fancy molds of various sizes are always nice to own, but you may be surprised what substitutes you can find in your kitchen — bowls of various kinds, custard cups and even ice cube trays. To learn capacity of mold, fill with water and measure the amount with measuring cup.

Preparation — Follow recipe directions for use of either flavored or unflavored gelatine. Each envelope of unflavored gelatine is equivalent to 1 tablespoon and will gel one pint.

Chill gelatine mixture to the consistency of unbeaten egg whites before adding fruits, vegetables (both well drained) or meats to insure their uniform distribution. To hurry chilling, place in bowl of cracked ice or ice cubes and water. Just in case it gets too hard, soften over hot water. Fresh or frozen pineapple will not set with gelatine unless pineapple is brought to a boil first and cooled.

To layer gelatine salad — Place first portion in mold and chill just until set — should be sticky, not smooth, when touched with fingertips, so next layer will cling and not slide off after chilling and unmolding.

To make design or pattern — Pour a layer of partially thickened gelatine in the mold, arrange fruits or vegetables in desired design, pressing lightly into gelatine, and allow to partially set before adding next layer.

For "souffle-type" salad using mayonnaise or salad dressing, chill gelatine mixture quickly in freezer until firm about 1 inch from edge. Beat until fluffy and quickly fold in remaining ingredients; turn into mold and chill.

Unmolding — Run tip of sharp paring knife around edge of mold. Dip mold briefly into warm water (not hot) to level of gelatine only. Rinse salad plate, large enough to hold both salad and garnishes, in cold water (do not dry) and place on top of mold.

Holding both together tightly, invert quickly, shake mold gently, and remove. If necessary, press a damp hot towel around mold. Tipping mold slightly at one side will help air to release the gelatine.

Note: I find that brushing mold lightly with salad oil before filling makes unmolding easier.

Salads You'll Like

Following are recipes for a variety of molded salads. The first four (with some adaptations) come from the Knox Gelatine Company; the first three match our color photo.

CRAB MOUSSE IN TOMATO CUPS

- 1 envelope unflavored gelatine
- ½ cup cold water
- 2 tablespoons sugar
- 1 teaspoon salt
- 1½ teaspoons dry mustard
- ½ cup fresh lemon juice
- ½ cup sour cream
- 2 cups cooked flaked crab
- ¼ cup fresh snipped dill or parsley (if desired)
- ½ cup heavy cream, whipped
- 8 to 12 large tomatoes

Sprinkle gelatine over water in saucepan; stir constantly over low heat until gelatine dissolves. Remove from heat, stir in sugar, salt, dry mustard and lemon juice. Add sour cream and beat until blended. Chill, stirring occasionally, until mixture mounds slightly when dropped from a spoon.

Stir in flaked crab and dill or parsley if used; fold in whipped cream. Chill until mixture can be piled up in mounds.

Sprinkle gelatine over 1 cup milk in medium saucepan; let stand until moistened. Stir constantly over low heat until gelatine dissolves, about 4 minutes. Remove from heat and stir in remaining cup of milk, salt, dry mustard, Tabasco and lemon juice. Add sour cream and beat until smooth.

Chill, stirring occasionally, until mixture mounds slightly when dropped from a spoon. Fold in the vegetables, then the whipped cream.



Photo: Knox Gelatine Company

Molded salads are a boon to the busy homemaker or hostess because they can be made ahead, so last-minute preparations are easier. Also, they are beautiful to look at and delicious to eat.

Remove thin slice from top of tomatoes, scoop out pulp to form shells, and turn upside down to drain. (Reserve pulp for soup, sauce or for stuffing other vegetables.) Spoon in chilled crab mousse, piling high over top of tomatoes. Chill until firm, 3 or 4 hours. Garnish with parsley sprigs. Serves 8 to 12. (Shrimp may be used in place of crab.)

POTATO SALAD CRECY

- 2 envelopes unflavored gelatine
- 2 cups milk, divided
- 1½ teaspoons salt
- ¾ teaspoon dry mustard
- ¼ teaspoon Tabasco sauce
- 1 tablespoon fresh lemon juice
- 1 cup sour cream
- 2 cups diced cooked potatoes
- 1 cup grated carrot
- ½ cup chopped green pepper
- ½ cup cut-up celery
- ¼ cup diced onion
- ¼ cup thinly sliced radishes
- 2 tablespoons chopped parsley
- ¼ cup heavy cream, whipped

Turn into a 6-cup mold and chill until firm, several hours or overnight. Unmold and garnish with salad greens and carrot curls. Serves 8 to 12.

SANGRIA FRUIT SALAD

- 3 envelopes unflavored gelatine
- 1 cup orange juice
- ½ cup sugar
- ¼ cup fresh lemon juice
- 2½ cups cranapple juice
- 1 7-oz. bottle club soda or ginger ale
- 2 oranges, peeled and sliced crosswise
- 1 banana, cut in 1-inch chunks
- 2 peaches, peeled and sliced
- 1 cup halved strawberries

Sprinkle gelatine over orange juice in medium saucepan and stir constantly over low heat until dissolved. Remove from heat, add sugar, and stir until dissolved. Add lemon juice, cranapple juice and soda or ginger ale.

Chill, stirring occasionally, until mixture is consistency of unbeaten

egg white. Fold in fruit, turn into 8-cup mold and chill until firm, several hours or overnight. Unmold and garnish with additional fresh fruit. Serves 12.

SEA BREEZE SPINACH MOLD

- 2 envelopes unflavored gelatine
- ¼ cup cold water
- 1 can (10½ ozs.) condensed beef broth
- ¼ teaspoon salt
- 2 tablespoons lemon juice
- 1 cup salad dressing
- 1 medium onion, quartered
- 1 package (10 ozs.) frozen chopped spinach, thawed
- 4 hard-cooked eggs, quartered
- ½ pound bacon, crisply cooked and crumbled

Sprinkle gelatine over cold water and ¼ cup beef broth in blender container and allow to stand while assembling remaining ingredients. Heat remaining beef broth to boiling. Add to blender, cover and blend at LO (stir) until gelatine dissolves. Use a rubber spatula to push down any gelatine granules clinging to sides of container.

When gelatine is dissolved, add salt, lemon juice and salad dressing and continue to mix at LO until well blended; stop and add onion. Cover and blend at HI (chop) until onion is chopped. Stop, add spinach and eggs and cover; blend at HI until eggs are coarsely chopped. Stir in bacon and turn into a 6-cup mold. Chill until firm. Unmold and garnish with cherry tomatoes.

LARGE MOLD OF FRUIT (to serve 16-20)

- 3 packages cherry or lime gelatine
- 5¼ cups liquid (water, fruit juice or part ginger ale)
- 1 can pears (8 halves)
- 16 whole maraschino cherries
- 4 pineapple slices, cut in halves
- 2 cups halved Tokay grapes
- 1 large can fruit cocktail
- 2 small cans Mandarin oranges
- 1 cup finely chopped celery
- ¾ cup coarsely cut pecans or walnuts, if desired

Drain all fruits well. Add enough water to juice from canned fruit to make 5¼ cups. Heat about half the juice to boiling and dissolve gelatine in it. Add remainder of liquid and cool. Lightly grease with salad oil a large ring mold of 9 to 10-cup capacity.

Place an inch or two of the gelatine mixture in the mold and chill just until lightly set. Arrange pear halves end to end, rounded side down, in bottom of mold. Place a cherry in the spaces between pears on outer and inner edges of ring. Add enough of the gelatine to cover fruits and again cool until just lightly set.

Stand pineapple halves around edge of mold, cut side down, and fill in between slices with some of halved grapes. Combine remainder of fruits, celery and nuts with remaining slightly thickened gelatine mixture and carefully fill the mold. Be sure to have mold filled to top to make unmolding easier. Chill thoroughly overnight.

At serving time, unmold salad on large round salad plate. Place crisp greens around the edge of plate and in center of mold, a container of dressing made by folding whipped cream or dessert topping into salad dressing to which a little grenadine has been added.



SEX SELLS ALL

Like the AMERICAN AGRICULTURIST, I am fed up with all the unfavorable propaganda given eggs, milk, cream, butter and other healthful foods.

I read with interest all articles on the subject, both pro and con.

Overweight seems to be the culprit. Excess food is stored as fat, regardless of the source. We fatten pigs on corn (low in saturated fats),

and they don't even put butter on it. You never rush a pig that gets out... he might drop dead with a heart attack!

I came upon an interesting fact that is right in keeping with today's preoccupation with sex. The advertisers use sex to sell everything from automobiles to zinnias... so why doesn't the dairy industry?

I quote from my chemistry book, entitled, "The Chemistry of Organic Compounds" by Conant and Blatt, page 588.

"One group of substances known as the sex hormones are closely related to cholesterol and the bile acids. Structurally, they may be considered as derived from cholesterol by oxidation. Indeed, it may be that cholesterol is the actual

precursor of these hormones..."

Now when a doctor puts his overweight, coronary-prone patient on a polyunsaturated diet he knows what he's doing. After all, anything that would cause the heart to race and the body to sweat would certainly be detrimental to his health!

— Jean Richard, Brooks, Maine.

WANTS RATE

At a recent milk co-op meeting, we were informally discussing the cost of co-op membership in cents per hundredweight... collected by deductions from our milk check. We talked for several minutes before arriving at a cents-per-hundred-weight figure that we paid monthly to maintain our co-op membership.

I feel that every producer should know what is deducted from his check. Of course, he knows the total deductions, but the cost per cwt should be printed on every stub.

If ADA takes 5 cents per cwt, it should be so stated on the stub... if your milk co-op takes 6 cents, it should be so stated... if hauling costs 30 or 40 cents per cwt, it should be written as such. Rates change and people forget. We are entitled to it. Not printing per-cwt charges on stubs is being devious.

We now have truth-in-lending and truth-in-billing. It's time we had truth-in-milk-check-charges! Farmers should be able to compare costs; this would be a good way.

Producers would be more willing to cooperate with new programs if they knew what it was costing them.

— Tom Hempel, Port Byron, New York.

BOUQUET

The article in the February issue on "Management: the Game of Life," by Mr. Robert Suter, is the most complete discourse on this subject I've ever read.

I worked for 45 years in the home office of a large life insurance company, 29 years as a supervisor during which time I attended many seminars on management but none of the material was as complete and sensible as Mr. Suter's article.

— Everett S. Buck, Glassboro, New Jersey.

TOO QUIET

Sure, silence is golden, as Harold Hawley contends in his column. But has he reviewed the story of King Midas lately?

We began dairy farming about 25 years ago, built up a respectable-size herd, then for various reasons, had to sell most of the cattle. We like rural living, our children have had 4-H Foundation calves, and maybe some day we will farm for a living again. Meanwhile, I refuse to move to town, or sell acreage until sickness or old age forces me to, so we keep a few livestock for our own use and enjoyment.

Right now, it takes 72 minutes for two of us to do the chores in the morning. Last fall, my husband Sidney had the flu and was semi-sick for a long time. Our son went back to boarding school, and our 17-year-old daughter doesn't like to smell "barny" in school all day.

Since I was working part-time only, I volunteered my help before breakfast. No stranger to the barn, I had gotten out of practice over the past few years. But one morning, and I knew the routine. Two mornings, and I began to streamline and "improve" the routine. Three mornings, and neither of us was speaking to the other!

My husband, always moderately taciturn and chary of committing himself, customarily delays conversation by saying "What?" Whereas I, although quick and efficient in my work, like to exchange ideas, impressions, opinions and thoughts, to share all sorts of happenings verbally.

It really didn't take us long to agree that morning milking time,

(Continued on page 55)



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Quiet

in Dad's domain, must be devoid of casual talk. We must limit ourselves to mostly "business" messages. Before long, even as Mr. Hawley at Gayway Farm, we went the whole way . . . no talk unless it applied to the job at hand. As the habit of talking was broken, the job of milking was speeded up and improved.

Some More

Then the next half-hour of breakfast and putting up lunch began to be more of the same. "Your turn to ask the blessing." "Don't forget to put a spoon in my dinner box." Good day to check out the rest of the beehives if you get to it."

So, okay! But when did our habit of talking get so broken that it really presented a problem? When did I get so I confided more in our animals, our children, or the people at work than I did in my husband? Like King Midas, we had all this gold . . . golden silence . . . in the barn in the morning, in the kitchen at mealtimes, in the living room during brief evenings, in the bedroom at night, and even when we went out together. And when this line of communication weakened, it undermined and loosened some of the other lines we had taken for granted for so long.

Vaguely I was aware of all this. Then that little item in the AMERICAN AGRICULTURIST jolted me, and in the three days it has taken me to compose this letter, I have done some deep thinking on cause, on effect, and on remedy.

While I am sure that Sidney will never be a garrulous old man, I could never be happily mute; so I believe we will sacrifice some of our golden silence (or all of it) as needed to maintain a rejuvenated, challenging, conversational companionship! — Mrs. Lillian J. Abbott, Buckfield, Maine.

GOOFED AGAIN

In reading the February column entitled "Handy for Farm & Home," I am prompted to call your attention to two items: "Shelves" and "Drilling."

It would be fun to watch the writer try to put a half-inch pipe through a half-inch hole in the wall . . . or to put a bolt through a hole the size of the hole in its nut. Half-inch pipe is roughly 7/8-inch outside diameter and the hole in the nut is the size of the bolt, less twice the depth of the thread.

The late Professor Robb of Cornell would certainly have gotten a chuckle out of it. One time he asked his class where the governor was on a Model-T Ford and finally had to tell them . . . er, us . . . that it was on the seat! — H. James Richmond, Phelps, New York.

Sale

(Continued from page 42) miles; the classified ads were doing their job.

Sunday morning was a repeat of Saturday. Instead of the antique dealers' parade, it was a bus load of golden age ladies from a retirement home. They were heading for an eleven

o'clock church service in Bucks County, Pennsylvania, and the afternoon was to be spent visiting places of historic interest. The sale was put on their agenda as part of the bus tour.

Monday, Labor Day, was just that — a day of labor. With coffee, milk and sandwiches as our main diet for three days, Cathy was showing signs of wear, and I was dragging on all fours. At 3:15 Monday afternoon a crayon and cardboard sign was handwritten — "Thank you — sold out." We were down to a box of cracked cups and two old chairs. It was then that I realized that old saying, "one man's junk is another man's treasure," is true in all its wisdom.

When we totaled the cash receipts of our labor, we had sold \$1117.00 of our own unwanted goods and \$1822.50 for my friend Joan. The commission on Joan's merchandise was \$364.50, giving us a gross total of \$1481.50. With \$163.00 for expenses, we had a net profit of \$1318.50, or an average of \$119.50 per week for the 11 weeks we worked on the project. Not bad for a mother and a 14-year-old girl!

But I know now that a successful garage sale must be planned. My better half knows his trade, and his rules for any kind of a sale are sound. So if a Grange, ladies society, fire company, fraternal or patriotic organization wants to run a money-

making project with little expense and large returns, just follow his simple rules:

1. Set the date of the sale well in advance, but start to work immediately.
2. Have plenty of good clean merchandise to offer.
3. Remember, anything can be sold.
4. Keep records of merchandise and expenses.
5. Advertise in a large radius.
6. Price everything realistically.
7. Keep the sale looking fresh (tighten the sale).
8. Be prepared to work.

Number 9 is my own — find a great guy like my number one super salesman to help you.

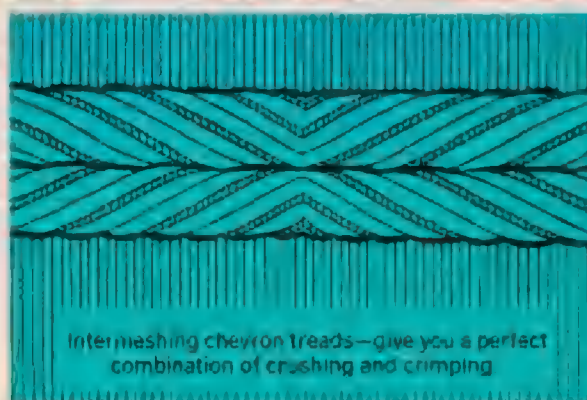
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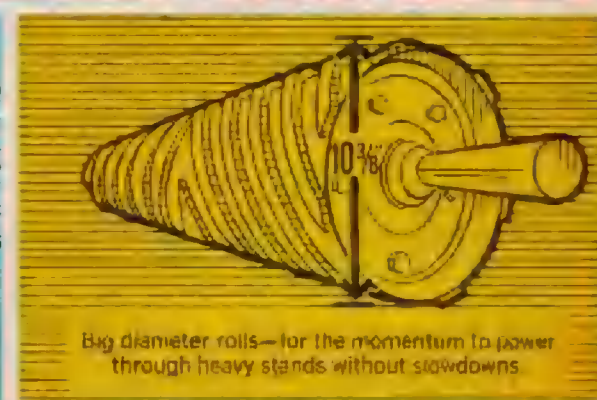
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And best of all, these exceptional rolls are "packaged" in a machine that's solid all over to give you long years of dependable service. That's why more farmers buy Haybine mower-conditioners than any other brand.

There are three models to choose from: a self-propelled and a pull-

type that are 9'3" wide and a smaller pull-type that cuts a 7'3" swath.

Shouldn't you pay a call on your New Holland dealer before getting all wrapped up in this year's haying?

Remember, if it isn't New Holland, it isn't a genuine Haybine.

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Agway Farm Enterprise Salesman Bill Moses presents monthly Agway Dairy Feeding Profile to Richard Whitcomb (left) and Leonard Germain (right).

"Total Enterprise Service helps us make more money."

Leonard Germain, Springfield, Vt.

By some measurements, the Valley Brook Farm, located near Springfield, Vt., looks small. Only 70 tillable acres and a total herd of 100 Holsteins, including 60 milking.

But when it comes to profits, Valley Brook looks big. In fact, this farm, managed by Leonard Germain in partnership with his father-in-law, Richard Whitcomb, is more profitable than many over twice its size. Last year's lactations average was over 18,000 lbs.

"Secrets? I don't have any," says Mr. Germain. "I just use my own ideas and other practices proven by nationally known authorities that maximize production and eliminate unnecessary labor.

"Practices like minimum tillage for corn and hay . . . a free-stall barn with milking parlor that lets one man milk the cows in 90 minutes . . . a total dairy ration that increases nutrient consumption and decreases holding time in the parlor.

"Agway Farm Enterprise Service has helped us adapt

these new practices and make them pay off. For planning and problem solving, we get advice of Agway agronomists, nutritionists and other experts whenever we need them. We also subscribe to the Agway Farm Accounting and Dairy Feeding Profiles. These computer reports are indispensable for keeping cost and performance records.

"All considered—the total package of services and products we get with Agway Farm Enterprise Service helps us manage each part of this farm carefully, helps us make more money."

Agway Farmer-Members like Leonard Germain prove you don't have to be big to be profitable—or be big to get the help that comes with Farm Enterprise Service.

For complete details, give your local Agway a call.

Farm Enterprise Service

AGWAY

Loader speeds preparation of total dairy ration.



Valley Brook Farm in autumn.



Mr. Germain collects sample for Agway forage #131.





For The
*Northeast
Farmer*

MAY 1972

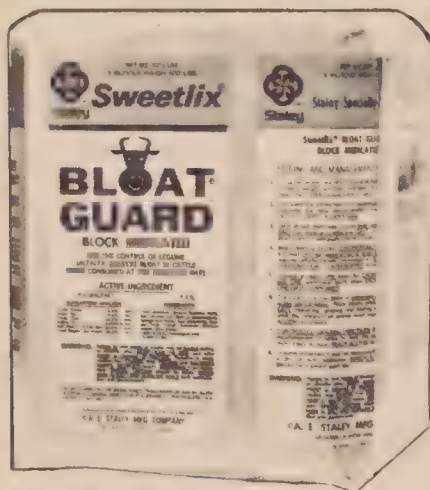
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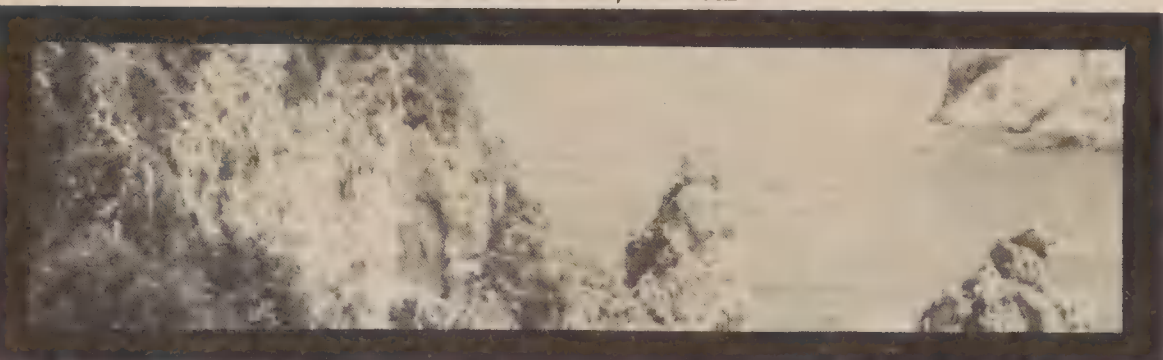
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American Agriculturist and the RURAL NEW YORKER

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OUR COVER

Alek Narsasian shoes a horse held by Lorilee Swartz, daughter of Clyde Swartz of DeRuyter, New York. Photo: Joseph Albino



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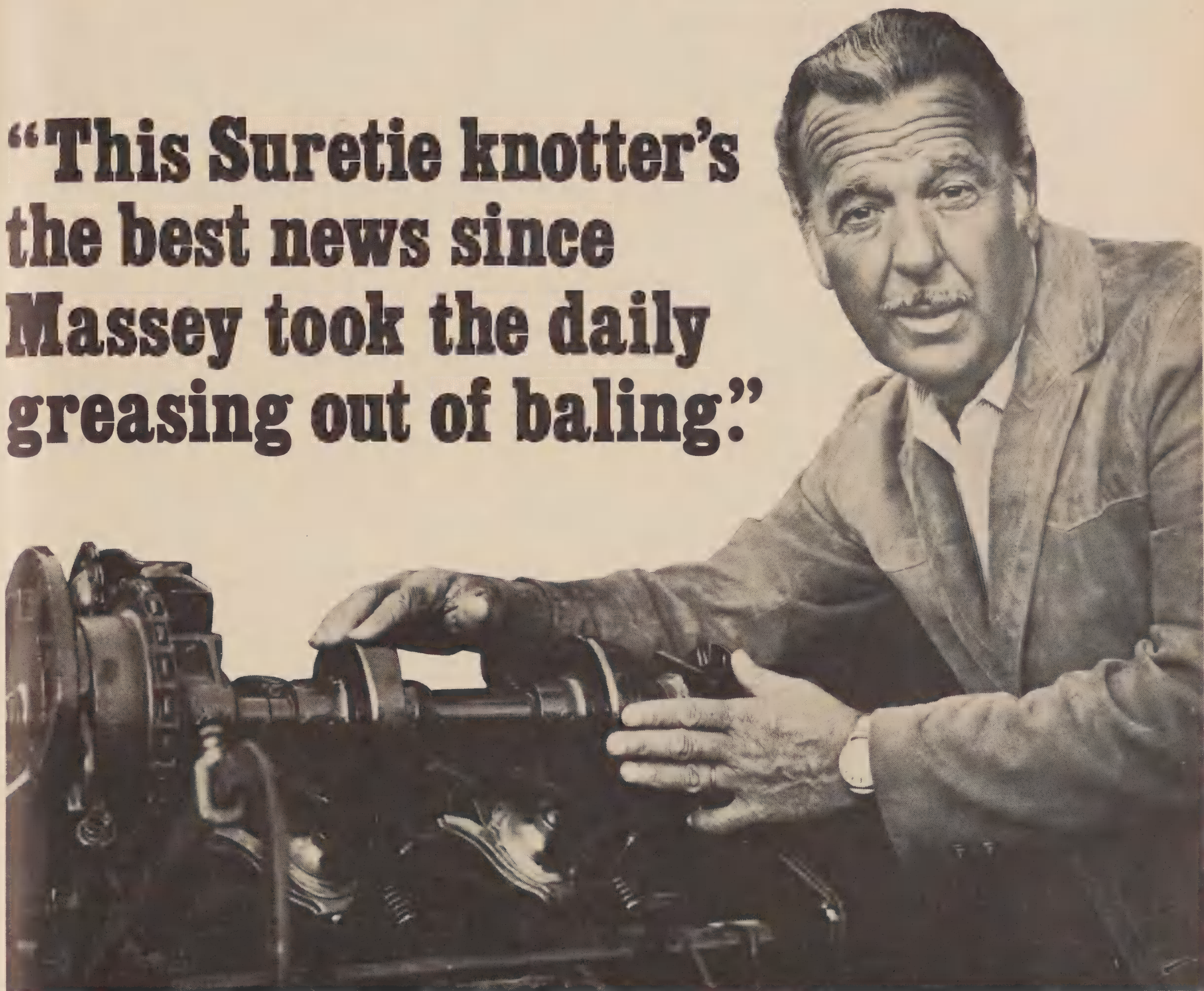
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American Agriculturist, May, 1972

LISTEN TO TENNESSEE ERNIE FORD:

**“This Suretie knotter’s
the best news since
Massey took the daily
greasing out of baling.”**



NEW MF 124 BALER! Ernie's right.

If you're sick and tired of missed ties, Massey-Ferguson has good news for you.

It's the new MF 124 Baler — with exclusive Suretie knotter. Five years of worldwide testing proves this knotter reduces missed ties up to 33%. It ticks off perfect ties like clockwork. With any twine — sisal or plastic. And with no adjustments. Result: you get tighter bales tied with stronger knots practically every time.

The new MF 124 has extra capacity, too. It gobbles up hay like no other 14" x 18" baler — even holds its own with many 16" x 18" models. One of the biggest throat openings in the industry — a whopping 293 square inches — is one reason why. Others are increased flywheel and shear bolt capacity and heavier clutch — all to keep you going faster without stops.



And with Massey's exclusive 3-point plunger support, with new precision, sealed bearings, this new Massey baler gives you the most stable plunger arrangement in the industry. Plunger stroke is a full 30 inches for greater capacity. And thanks to Massey's exclusive trapezoidal side rail, you get precise knife alignment at all times.

The MF 124 is designed to give you accurate bale density control for firm, solid, better-looking bales. Three-tine packer forks won't "hairpin" around hay. Three easy penetration adjustments assure good bale appearance in all crops. And you don't pay extra for tension springs — they're standard.

You can also read and adjust bale density on the go with Massey's optional tractor seat density control. And this MF feature is yours for about half the cost of conventional "Hydraulic" density controls.

One thing more to keep in mind: Like all Massey balers, the MF 124 can make 15,000 bales without a single stop for greasing.

For baling at its best, get details on the MF 124 or the MF 126 wire-tie baler from your nearby Massey dealer. He's listed at the left.



EDITORIALS

by GORDON CONKLIN



MILK REFERENDUM

Beginning May 1 . . . barring a fratricidal court challenge by some disgruntled dairyman . . . a deduction will be taken out of the milk checks of every New York dairyman. This money will be used for milk and dairy-product promotion, and for product-development research. It's been a long, hard row to hoe in arriving at the point where 58 percent of all New York dairymen would be recorded as in the "yes" column on milk promotion.

Other statistics: there were 20,948 milk producers qualified to vote in the referendum . . . 12,139 of them either voted "yes" individually, or were bloc-voted that way by their cooperatives . . . 78 percent of those farmers participating in the referendum were in the "yes" column.

In the light of growing production, and shrinking milk consumption, this historic step was taken none too soon. The order must be voted on again within three years from May 1, 1972 . . . hopefully, dairymen and the leaders of their cooperatives will close ranks sufficiently to give the program a good try during that period.

LONG ON LAND

I visit with folks now and then who foresee a time when these United States will be "so short of land that we'll have food shortages." Could be, but it looks to me that it will be a long way down the road before that happens.

Uncle Sam has for many years had a variety of "cropland diversion" programs going . . . a bureaucratic way of saying that farmers have been paid to hold land out of production, or to switch acreage from one crop to another. For the five years 1966 through and including 1970, an annual average of 54 million acres were so diverted.

The USDA estimates there are also 40 million acres of woods and pasture in the Mississippi Delta, Midwest, and Southeast regions that could profitably be shifted into cropland. Soybeans and rice would be at the top of a list of alternatives that could be grown on such land.

Our food supply could sometime be tightened up by unduly restrictive pesticide laws . . . or by a massive and sustained cutback in funds for agricultural research . . . but not likely for a long time because of shortages of land.

THE DILEMMA

Writing of the economic situation facing farmers, friend Jim Thomson, editor of the *Prairie Farmer*, summed up the situation very well. He commented, "The farm problem has two solutions. One is economic. The other is political. The economic is unbearable, and the political is unworkable."

But there are some other horns to the dilemma. When milk cooperatives become aggressive in the political arena, Ralph Nader and his crew go to court asking that price-support increases for milk be nullified . . . charging political manipulation. And when one huge milk cooperative negotiated superpool premiums, the Justice Department began sharpening its anti-trust hatchets.

All the while, farmers puzzle over the fact that labor unions have long had political action departments channeling millions of dollars to support friendly politicians . . . and the dock-wallopers can cost farmers hundreds of millions in lost sales with nary a whisper of antitrust

action against the longshoremen's union!

In my more pessimistic moments, I wonder if the supposed rights enjoyed by farmer co-ops under the Capper-Volstead Law are applicable only so long as they're not aggressively used! When a group of farmers finally decides to make the hard decisions required to really begin squeezing out price increases for their products, everybody else involved begins screaming to the government, or to the courts.

When the chips are down, and the buck can't be passed any farther, the gut policy of government is for **cheap food**. Can farmers find a responsible way to bargain as equals alongside the enormous political clout of labor unions, and the tremendous financial power of giant corporations?

What do you think?

AG SOCIETY

The New York State Agricultural Society was founded in 1831, and is now the sole surviving society of that type in the nation.

It has a long list of contributions benefiting agriculture, including early sponsorship of the New York State Experiment Station and the College of Agriculture, as well as the State Fair, and the continuing program of honoring Century Farm families.

The Society continues to actively promote agricultural progress . . . and provides an annual get-together where agriculturists can enjoy the stimulation and friendship of colleagues in the business of fulfilling man's basic need for food.

For more details about a fine organization, contact the Society at State Campus Building, Albany, New York 12226.

GUEST EDITORIAL

Herb Karner, farm editor for the *Tulsa Daily World* at Tulsa, Oklahoma, wrote a column in the *World* earlier this year in response to a letter from a reader. Lacking the courage to sign the letter with more than the initials DRH, the reader had upbraided Herb as follows:

"I suggest that Herb Karner get in touch with the world around him instead of myopically defending the agribusiness and pesticide industries . . . he might see what most of us find obvious: chemical pesticide-induced depletion of the soil, resulting in poisoned food, air, soil, and water. In short, destruction of everything pure."

In reply, farm editor Karner commented on the letter from DRH and here are parts of those remarks:

Your letter brought back memories of the days when everything was "pure" . . . ah, yes, when nobody used commercial fertilizer, or insecticides or herbicides. Those were the good old days.

Those were the days when eating an apple or peach was an adventure, and produced the joke "what's worse than finding a worm in an apple? Answer . . . finding half of one." Those were the days when hogs died of cholera and lay rotting in creeks . . . from which farmers downstream dipped drinking water. Those were the "pure" days when cans of cream would sit on railroad shipping docks in the hot, boiling sun covered with swarms of flies and crawling with maggots.

Those were the "pure" days when meat markets hung sides of meat in the open, providing spawning grounds for flies and other insects that

had their beginning in open cesspools and backyard toilets. Those were the days when flocks of hens died because of "limber-neck" caused from eating maggots found in decaying animal carcasses and manure piles . . . the same kind of feed that produced table eggs so smelly you had to hold your nose to prepare and eat them.

Yes, those were the days when hogs were fed raw garbage, producing in many persons a malady known as trichinosis . . . and when housewives strained milk not only to remove flies, hair and other dirt, but to strain out "stringy milk" which later turned out to be the pus from lesions of mastitis . . . infected cow udders. Many a person walked around with debilitating illness known as Malta Fever which he didn't associate with aborted cows and sows until it was identified as brucellosis abortus which now has virtually been stamped out.

Those were the days when the environment was "pure" and when cemeteries filled with bodies of babies and young children . . . when malaria and typhoid fever literally wiped out entire families. Those were the days when life expectancy was 46 years for men and 48 for females compared to 70 and 72 today when farm chemicals make it so dangerous to live. Those were the days when the sun was blacked out by boiling clouds of swirling dust; when the rains washed away topsoil and streams and rivers ran red with millions of tons of eroding land until farmers built terraces, and used "dangerous" fertilizer to establish cover crops to hold the soil in place.

Ah yes, "DRH" . . . my "lost touch" with the world around me is what makes your closing statement so hilarious . . . "he might see what most of us find obvious: chemical-pesticide induced depletion of the soil, resulting in poisoned food, air, soil, and water. In short, destruction of everything pure." We have no idea whom "most of us" include. "DRH" didn't say.

We didn't know the extent of "DRH's" awareness of the world around him. We must agree that our "world" viewpoint is limited . . . limited to survival of an attack of dengue fever in the tropics; an insect-borne disease so painful and disabling that we lay in our own body wastes on a canvas cot for a week unable to move. We've survived bacillary dysentery in the Orient caused by impure drinking water . . . and a crippling onset of infectious hepatitis from eating vegetables grown on land fertilized with human excrement. We counted it a blessing to get enough DDT to control disease-carrying body and crab lice . . . you ever been lousy, "DRH"?

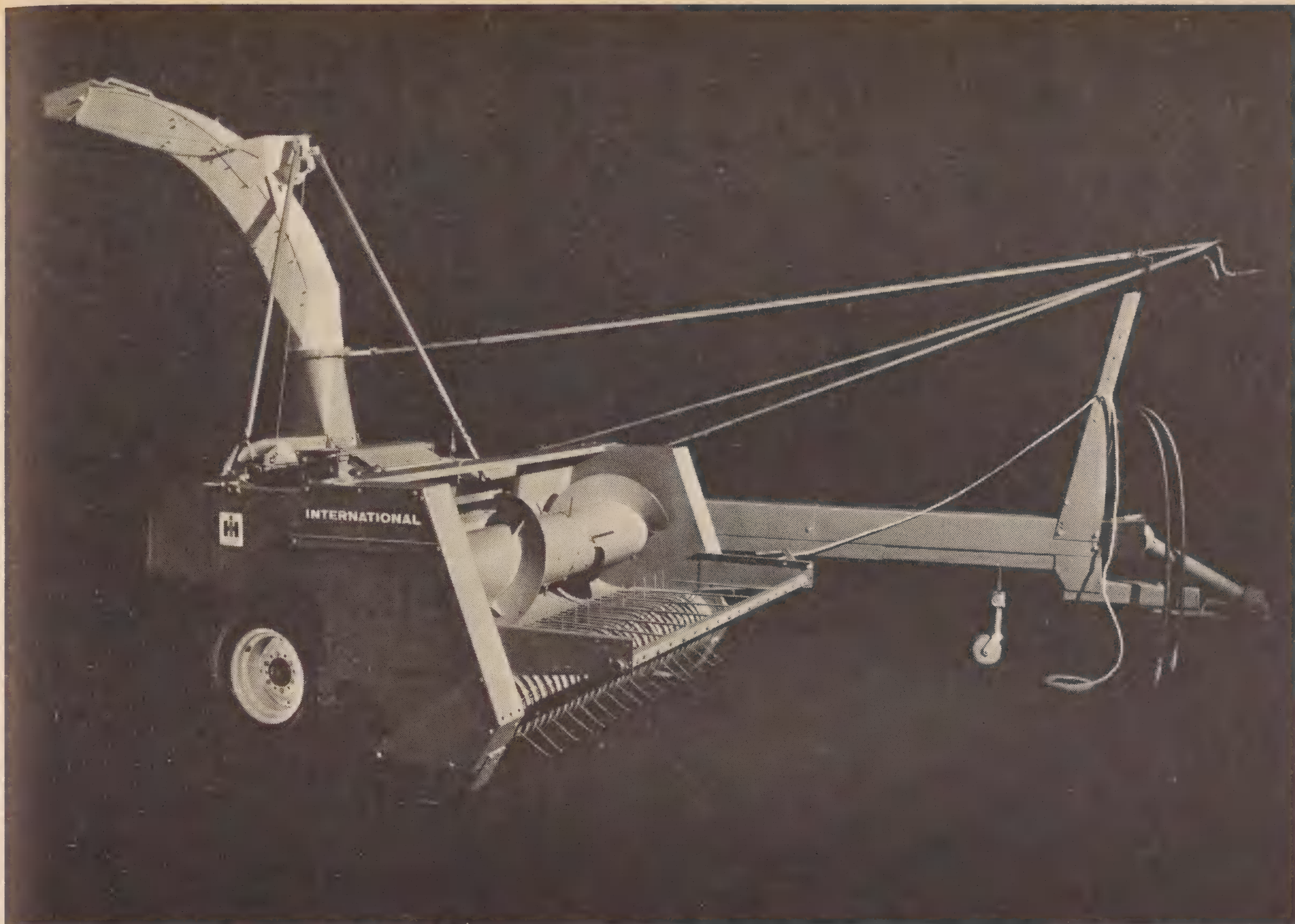
Our world includes seeing bloated bellies of starving children suffering from kwashiorkor, a protein-deficiency disease; children who scavenged in garbage dumps for something to eat . . . a child whose parents would literally give their lives for enough fertilizer, pesticides and other chemicals to provide an environment "DRH" says is killing him.

For years we've stressed the cautious, intelligent use of farm chemicals, warning readers time and again that abuse is dangerous and deadly. We've provided space for ecologists and environmentalists to state their viewpoints. We've said again and again that environmental abuses exist. We've had harsh things to say about industries that wantonly abuse the environment.

"DRH" reminds us that there are people whose view of the world is limited by their rose-colored glasses; a world that never existed and never will. We thank "DRH" for forcing us to remember some unpleasant experiences which he seems to look forward to in his "pure" world.

Good luck, friend, you'll need it! We have lived in your "pure" world, and you can have our share of it. We'll take the DDT-plagued, fertilizer and chemical-poisoned world where food is better and cheaper than ever before . . . and where people live longer and healthier lives. If this is defending the fertilizer-chemical industry, so be it!

American Agriculturist, May, 1972



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What's NEW in the FIELD



by Bill Pardee

ALFALFA HARVEST TIPS

GOOD management pays, whether you're dealing with cows or alfalfa. With today's techniques, you can harvest high yields of nutritious forage that'll put milk in your tank, and dollars in your pocket. But slip a bit, cut a few corners... and production costs climb as feed quality drops.

Haying time is coming fast, so we've pulled together some tips on management practices, well proven in both college research and farm experience.

For background information, I've leaned heavily on Dr. Bob Seamey, Cornell agronomist, specializing in forage crops.

Early Cut

No doubt about it, cows do best on early cut, immature forage, high in protein and digestible energy. They eat more and get more out of what they eat. Feeding trials the world around all bear this out.

Just as surely, research shows cows do less well on late-cut stuff. This is inevitably lower in energy and protein, and higher in indigestible fiber. This slows digestion, and the roughage stays in the gut longer. This means the cow feels full longer, doesn't get hungry as soon and so eats less feed. You'll need less hay — but you'll make less milk.

Alfalfa quality is particularly important for dairymen striving for maximum production per cow. Alfalfa's protein helps balance corn silage in top production rations. Early-cut alfalfa packs in additional energy through its high digestibility and intake factors.

But while early cutting favors the animal, late cutting helps the plant. The alfalfa plant tries to flower and set seed, while producing a tough woody stem to hold its seed pods off the ground.

Root Reserves

The plant also tries to stow away food reserves in its roots. New alfalfa growth draws heavily on these reserves. Cutting too soon, too often, can cause continuous draw-down on root reserves and eventually lead to death. So we need to plan in enough growing time between cuts to let the plant build back its own reserves.

Best time to start harvesting alfalfa is at bud stage before first flowers show, when protein, digestibility and palatability are all high. Start early, then hope to have first harvest complete when your later fields hit full flower. Better to start early, than to finish late, with over-mature hay. Pick your most vigorous fields to cut first, leave winter-damaged or thinner fields for last.

Experts differ on whether to cut by calendar date or flower stage. Most years, you can go by the latter and start your first cutting at bud stage. But time of bloom can vary

from year to year, depending on the weather.

Best bet is to watch both the calendar and the flower stage of your alfalfa. Check your buds and flowers, but if flowering is delayed and your growth is rank and likely to go down... or, worse yet, already down... don't wait for buds and flowers. Get it as soon as you can.

One disadvantage of late cutting that's often missed is the damage done to second cut. New growth starts coming from crown buds when alfalfa begins to flower. By full flower, these new shoots can be 4-6 inches tall. This means you'll get them too when you harvest, and your plants will need to start over with another set of buds from their crowns. They can and will start again, but your second growth has been set back, both in time and yield.

Early cutting also sets you up for 3 to 4 cuts per year, as opposed to two. Carl Lowe, Cornell plant breeder, has shown you'll get higher yields, better quality with 3 to 4 cuts. But to get this you've got to start early.

Between Cuttings

Time interval between cuttings should be at least 42 days in New York and New England, 38-42 in Jersey and Pennsylvania. We've tried management systems to reduce this time interval, but whenever we do, we start hurting stands. A 42-day hay schedule permits 3 cuts over most of New York and New England and 4 cuts in Jersey, Pennsylvania and New York's Hudson Valley.

Bud stage cutting in the first harvest may not be easy, because that's likely to come May 15-25 in Pennsylvania, May 25 to June 5 in New York. Your odds are slim of getting 3-4 good drying days in a row at this time of year. More and more farmers are beating this by putting up their first cut as hay-crop silage.

Labor Advantage

Hay-crop silage has advantages from the labor end. Choppers and blowers take the heavy backwork out of haying, making it a mechanized operation. With high-capacity choppers, and the power available on modern farm tractors, farmers going this route cover more acres faster... and with a smaller labor force... while putting up top-quality forage.

With "no-nurse" seedlings, sown without a small grain crop, you'll find new timing needed, though the principles above still hold. If the stand was sown early, you should be able to take off your first cut somewhere between July 1 and July 15, then come back for a second cut the last week in August.

Dr. Seamey has cut new seedlings

(Continued on page 8)

American Agriculturist, May, 1972

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"How can a garden tractor that looks so good be so tough?"

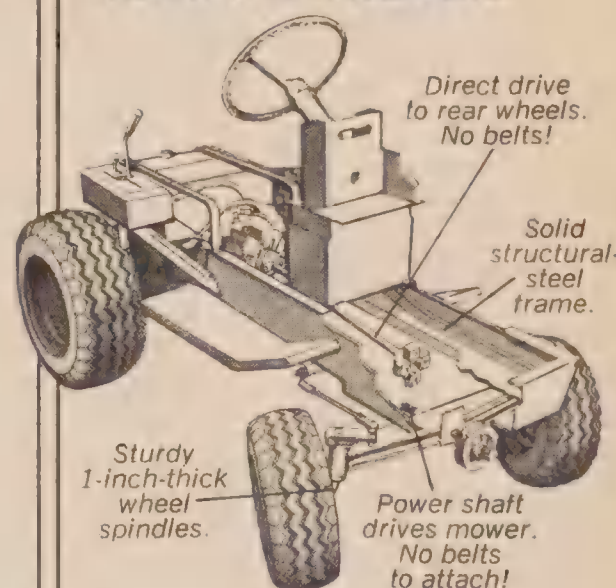


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Everyone who buys a New Holland garden tractor (any new model: 8-hp., 12-hp., 14-hp.) between March 1 and May 31, 1972 will receive one or more of these bonus gifts with his purchase.

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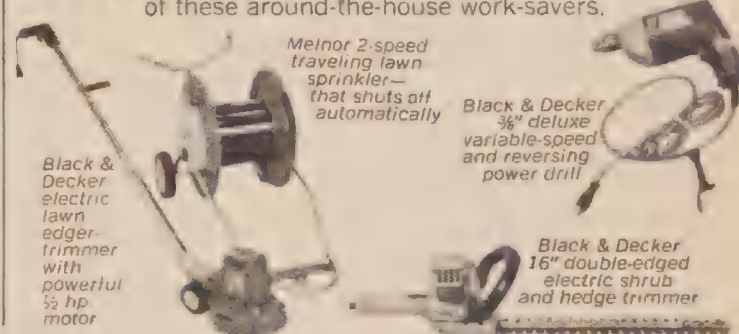
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Alfalfa

(Continued from page 6)

as often as three times the first year, and with various time schedules. He has found that "no-nurse" seedlings have lots of vigor, and generally establish well despite rigorous treatments. Still, he suggests you not overdo it. Plan two cuts, with the last one to come off by Labor Day.

The question, "How dry should I chop?" stirs up arguments in many a country coffee shop. Feeding trials by Cornell scientists show 55 to 65-percent moisture to be the most efficient range in making the most milk for the least feed.

This moisture also makes sense from a yield standpoint. Go much drier and you'll blow away your

drier leaves, buds and other "fines." Get too dry and you can get "caramelization" (browning) and other heating effects that tie up digestible proteins in the silage.

We've even had several silo fires in New York from internal combustion of hay-crop silage that was too dry to ensile, but too wet to bale. On the other hand, put it up wetter than 65 percent and you'll get higher storage losses from seepage, and from undesirable fermentation. You'll also get odors that your wife (and your neighbors) won't like!

Individual loads will vary quite a bit in moisture content as you chop through a long day. But juices swap around in the silo . . . and your overall product should average out within the 55 to 65-percent range.

Seeding-year hay, grown without a companion crop, dries quickly and can fool you. It's so fine-stemmed that it can pass through the desirable moisture range quickly and end up too dry to chop. So keep a particularly close eye on such stuff. Often, you can mow and condition it in the morning and chop by mid-afternoon.

Several moisture testers are available on the market, some expensive, others rather economical. Big problem is the time it takes to run the test. By the time you've found out the moisture of your sample, your hay in the field may have dropped by five percent!

Best method still seems to be the tried-and-true "grab" test where you chop some forage, then grab a handful of fresh-chopped material from

the wagon. Squeeze the handful tight in your fist, then open your hand.

If the forage stays in a tightly-packed mass, it's too wet (65 percent or more). If it springs apart and loses shape, it's too dry (under 50 percent) and maybe you should consider drying it further to make hay. If the handful expands gradually, while keeping its shape, it's just right for silage.

Proper fertilization is essential in good forage management. Main nutrients needed are phosphorus and potassium. Phosphorus fills many essential roles in fast-growing plants. Potassium is involved in photosynthesis, and plays a major role in developing winter-hardiness.

Ideal time to put these on is right after the first cut. But if that's not possible, put it on after the second cut. The important thing is to get it on by late August or early September so it can help you fall growth harden off for winter.

Rates vary, depending on your soil type, your soil test and other factors. You may already have checked this out and know the best rates for your farm. If not, check with your local extension agent and fertilizer dealers.

Bugs

The alfalfa weevil and the potato leafhopper can both hurt your alfalfa crop enough to justify spraying, if you're in areas where these pests are prevalent. In southern Pennsylvania, Maryland and New Jersey, alfalfa weevil parasites have been killing off the weevils, reducing them to a minor threat.

The USDA, along with state college and extension workers, have introduced these small wasps across central and western New York. They attack only the alfalfa weevil and its close cousin, the clover weevil.

Weevil populations were heavily parasitized last year from the Hudson Valley well into central New York. These parasites should continue to help and spread out — but don't rely on them entirely. Keep your eye on your alfalfa fields . . . and if you need to spray, then spray!

Great Chaw

Check closely new regrowth from early-cut fields. Here's where the weevil can hurt you most, as he nibbles off new leaves coming from crown buds. The sooner you can spray after cutting, the better, if you're in weevil territory.

Leafhoppers often stunt second growth severely. These pests frequently cause more damage than alfalfa weevil, though not so dramatic. Good sprays are available, but they need to be put on early, before severe damage takes place.

It won't pay to spray stunted alfalfa that's already showing the typical yellowing and purpling from leafhopper feeding. Best bet is to check yourself, or have someone check for you with a sweepnet, 10-15 days after second growth starts. If you find 10-20 hoppers per 100 sweeps (or more), it'll pay to spray.

Check with your local extension agent for best chemicals, and conditions permitted for their use, for both leafhopper and the evil weevil.

Many alfalfa stands suffered severe damage this past winter. If you have

(Continued on page 9)

VEGETABLES

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INSECTICIDE

new dean

W. Keith Kennedy, professor of agronomy and vice provost at Cornell University, will become dean of the New York State College of Agriculture and Life Sciences at Cornell effective July 1. He will succeed Charles E. Palm, who retires in June after 13 years as dean of the college of agriculture.



W. Keith Kennedy

Kennedy has been on the Cornell faculty since 1949. In 1959, he became director of research of the college of agriculture and home economics and director of the New York State Agriculture Experiment Station at Geneva. He held these positions until 1965, when he became associate dean of the college of agriculture. He was named vice provost of Cornell in 1967.

A native of Vancouver, Washington, Kennedy earned a bachelor of science degree at Washington State College (now University) in 1940. He received his master's degree from Cornell in 1941. After serving as an infantry officer in the U.S. Army from 1942 to 1946, he returned to Cornell to earn his doctorate in 1947. Before joining the Cornell faculty, he taught at Washington State for two years.

Since 1959, Kennedy has received many special research assignments and awards, and has been a member and officer of a number of special University, State, regional and national committees concerned with agricultural research programs.

VENDING MACHINATION

by Mary McDonald

I put a quarter in the slot
To get that soup so piping hot,
But what I got I couldn't sup —
The soup came out but not the cup!

Alfalfa

(Continued from page 8)

fields that have been slow to come on this spring, leave them until last to harvest. A couple of extra weeks can often do wonders, giving plants time to reestablish their roots, get out more crown buds, and generally get healthy again.

We've recently been getting more questions on how close to cut, as new-type harvesters sometimes leave a tall stubble. Our research over the years shows that cutting alfalfa high reduces your yield, but doesn't help regrowth. New growth comes from crown buds, and not from the old stems.

Actually, the cleaner you can leave the field, the faster your new crop will come on. Long, lodged stubble actually hinders new growth. In test plots, we normally cut alfalfa at a height of one to two inches without damage to the crop. So you can set 'er down as close as you can — without hurting stems, and get all you can from your crop.

American Agriculturist, May, 1972

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Doc Mettler comments on:

grass tetany



A SERIES of cold, rainy spring days can be discouraging when you are hoping for warm, sunny ones. Of course, when the sun finally does shine the sky will seem twice as blue and the grass twice as green as it would have during a warmer, drier spring.

I always like to hear the sound of the cows in spring as they call to each other announcing that they

smell the grass. In spite of the advantages of zero pasture, it sometimes seems a cruel thing that these confined cows cannot get out to grass for a few weeks anyway. I say "sometimes" because, to be practical about it, there can be problems from too quick a change to pasture.

Despite all the zero pasture setups here in the Northeast, there are actually few dairy farms that do not

get the cows out for a small amount of grass during at least the first few weeks of pasture season. If it has been a cold, wet spring and the pasture is heavily fertilized, cases of grass tetany are bound to be seen in higher-producing, susceptible cows.

Grass tetany is, in its most severe form, very similar in symptoms to an advanced case of milk fever. Also, there are often mild cases that cause animals to merely stagger, act nervous or be only slightly off feed. This stage of the disease is often confused with nervous acetonemia.

Some of these mild cases will improve after being off pasture and fed hay for a day or two, and others will get worse. A higher percentage of grass tetany cases die than milk fever cases, and it is a much more difficult

condition to diagnose and treat.

In the Midwest, grass tetany or a similar condition is seen nearly year-round... and in other cattle than heavy milk producers. There it is known as wheat poisoning, winter tetany, grass hay tetany, and is even mislabeled nitrate poisoning. True, it seems to be associated with high-nitrate intake, but the basic cause is hypomagnesemia (below-normal amounts of magnesium in the blood). Usually, there seems to be a hypocalcemia at the same time, as in milk fever.

If you have read any farm papers from the Midwest in recent years, you probably have seen far more mention of this disease than here in the Northeast. There, they go to great trouble and expense to get magnesium oxide into the cows either by feeding or fertilizing the pasture. Cows do not store up magnesium very well, and a heavy-producing cow can use up in twenty-four hours all the magnesium she can store.

Natural

Here in the Northeast, most areas have a fair amount of naturally-occurring magnesium... so that only during cold, wet springs (and on soils heavily fertilized with nitrate) do we see grass tetany.

The first case I ever saw actually consisted of five sick animals out of a herd of not more than thirty. This was twenty-five years ago, yet the symptoms, diagnosis and treatment have not changed. I was fresh out of the army, with little actual practical experience. All I knew about grass tetany was that it was mentioned as a disease we would be most apt to see if we practiced in the fertile Midwest.

The call came in at evening chore time the first week of pasture. One animal was down, some others were staggering and acting nervous. Examination of the first animal did not tell me much, except that I had a down cow.

Had it been September instead of May, I would have suspected overloading on apples. Just because she was down, I gave her some calcium in the bloodstream. Luckily, this had some magnesium in the mixture. One of the staggering cows would fall, get up, stagger and fall again, much as a cow "drunk on apples" would do.

Simple Answer

Then I hit on what I thought was a simple answer. The farmer's son reported that a state road-paint crew had thrown some paint pails along the fence on the edge of the pasture. This made it easy to diagnose, yet impossible to treat — lead poisoning.

Since tests for acetonemia and other diseases were negative, we decided to give the staggering cows epsom salts (magnesium sulphate), which is supposed to help in lead poisoning by the sulphate tying up the lead. In the cow, this usually is of little help due to the accumulation in the rumen.

Since I did not carry epsom salts in my car, I sent for some and, while waiting, two things happened. One was that I went to look at the paint pails and found them not only out of reach of the cows, but even if they had been within reach, the label said the paint was lead-free. Second was

(Continued on page 11)



Making it pay.

Jimmy Steidinger began raising cotton in the Rio Grande Valley back in '55.

"When I started, I could see the challenge right away," says Jimmy. "With the high cost of farming, I had to get every dollar I could out of the land.

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drain tile. This gave me a more uniform crop.

"I've doubled my yield now, and I'm doing real well. I take my Cessna up every so often to check over my land. Then come September, I fly off for three months to see what's going on in the world.

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1) Field experience involving over 125,000 cows inseminated with straw-packaged sperm by Eastern technicians project a settling rate improvement of up to 3 percent when compared to the ampule system.

2) Considerably higher sperm survival rate through the freezing process has been observed with straws and less sperm is lost during the insemination procedure.

3) Utilization of the same storage facilities is multiplied two to five times.

4) Uniform and simple handling procedures make the insemination process easy and more effective.

The straw system was developed in France and is now the routine procedure in several European studs. Eastern A.I., which provides service for 30,000 dairymen in New York and New England, is the first to adopt total conversion to the straw system in the western hemisphere.

Tetany

(Continued from page 10)

that the down cow came walking into the barn as though nothing had ever happened.

Recollection

About that time, somewhere in the back of my mind I could hear Dr. Fincher or Dr. Gibbons (or was it Dr. Mills), well anyway, I heard someone say in a lecture four years earlier, "Hypomagnesemia can occur on lush, fast-growing pasture." We did give each cow a small dose of epsom salts, and an intravenous of calcium with magnesium, as the down cow had been given.

Since that day in May of 1947, I have seen quite a few grass tetany cases . . . not all of them as easy to treat as these first ones. Sometimes, two or three years will go by without any. On the other hand, I can remember two individual cows, both Jerseys with milk fever backgrounds, that would go down most anytime they hit lush grass, whether it was May or October.

You may dairy for forty years and never see a grass tetany case, and yet you may see one next week. I hope I have made you aware that this disease does occur in the Northeast.

Most important, I want you to know that grass tetany is nothing to take lightly. It is a disease that you will need veterinary help on in diagnosis, treatment and prevention.

The veterinarian you call today will be far more skilled than I was twenty-five years ago because of more experience or better education. Rely on him not only for diagnosis and treatment of sick animals, but for advice on a herd health program to prevent these problems.

American Agriculturist, May, 1972



Here's the new corporate name, along with new corporate symbol and logotype, of the Northeast Dairy Cooperative Federation, Inc. . . . headquartered at Syracuse, New York. Northeast was formed in 1965 through merger of the Mutual Federation of Independent Cooperatives and the Metropolitan Cooperative Milk Producers Bargaining Agency.

There are 68 cooperatives affiliated with NEDCO: the organization sold nearly \$99 million of milk and dairy products in 1971.



CHEESEMAKER

A 24-page booklet is now available that describes the activities of Jesse Williams, who established the first cheese factory in the United States near Rome, New York, on May 10, 1851.

By 1863, the business was producing 100,000 pounds of cheese annually, and Rome had become the largest cheese market in the world.

The booklet, entitled, "Jesse Williams, Cheesemaker," may be obtained from its author: Frederick A. Rahmer, P.O. Box 123, Rome, New York 13340.

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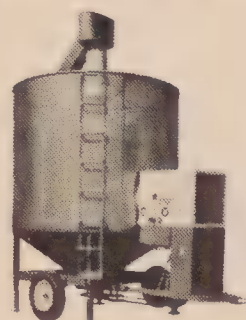
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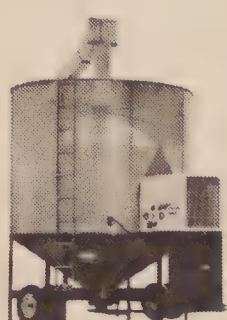
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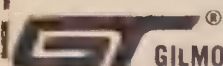
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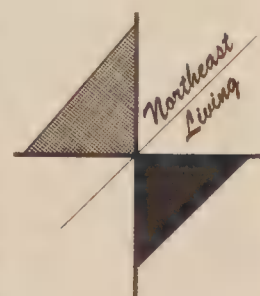
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Shown here are a part of the wall around Quebec City and the famous hotel Chateau Frontenac where our tour group will stay, as seen from the St. Lawrence River.

wonderful cruise

When the middle of August arrives and you're a bit tired of summer heat, what could sound more inviting than a chance to feel cool Atlantic breezes, as you cruise along the New England coast into eastern Canada and then south to Bermuda?



Dates for this year's **Eastern Canada and Bermuda Cruise** are **August 18-31**. Our ship will be the luxurious **TS Hamburg** of the German Atlantic Line, and we cordially invite you to come with us.

Of course, an outstanding feature of this trip is the delightful **Saguenay River cruise**, which many consider to be one of the loveliest boat trips to be found anywhere. We will travel through a wonderland of towering cliffs and majestic mountains, rising from the water's edge and rivaling the fjords of Norway. There are also many interesting ports of call along the way, some of which we mention below, but not necessarily in the order we will visit them.

Quebec City is the only walled city on the North American Continent. We tour this delightfully French town and also visit Montmorency Falls and the shrine of Ste. Anne de Beaupre. We tour a section of the **Gaspé Peninsula** while our ship is anchored in Gaspé Bay.

Prince Edward Island is sometimes called "Canada's Million-Acre Farm," since more than 80 percent of the land is under cultivation. We'll go ashore at Charlottetown and enjoy a sightseeing excursion that will help you understand the people and history of this Canadian province.

Sydney is the commercial capital of **Cape Breton Island**. A shore excursion along the scenic Cabot Trail, as it follows the craggy shore of

coves, valleys and headlands, is a beautiful drive. **Halifax, Nova Scotia**, is our last Canadian port of call.

Bermuda has a beauty and an unhurried charm all its own. Carriages roll through quiet lanes ablaze with hibiscus and oleander to the clip-clop rhythm of horses' hoofs. We'll visit Crystal Caves, Devil's Hole, the Aquarium, and the Lily Perfume Factory. There'll be plenty of time for shopping.

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Perhaps you'd rather stay on land for your summer vacation . . . if so, we offer you a delightful motorcoach tour which includes northern New England, Montreal, Quebec, the Gaspé Peninsula, New Brunswick and Nova Scotia. Dates are **August 26 to September 9**, and our tour group will gather in Boston.

There will be interesting stops as we cross New Hampshire and Vermont, including one at the Rock of Ages granite quarry and a visit to Shelburne Museum. We spend two nights in **Montreal** where we will see all major points of interest and ride to the top of Mt. Royal Mountain on a miniature train. Anyone who wishes to visit "Man and His World" will have the opportunity.

The drive to **Quebec City** is a fascinating one. We pass a 200-year-old windmill, an ancient grist mill, and many other interesting sights. Entering one of the gates of this walled city, we sense Quebec's Old-World atmosphere. On a tour of the city, we see the Citadel, Laval University, her parks, battlefields and narrow streets. A side trip takes us to see the Basilica of Ste. Anne de Beaupre and lovely Montmorency Falls.

(Continued on page 13)



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Food For The Spirit



by Robert L. Clingan

The former moderator of our Presbytery, Mrs. Sarah Clark, has commented on the irony that communication has become our greatest problem in an age with so many means of communication.

All who are concerned with the ability of the church to communicate the gospel as it understands it have some understanding of this problem. The church has the message by which the world could be saved, but most churches cannot get their message across. They speak, but they are not heard... words come gushing forth, but few people heed or even understand.

How can our churches become effective communicators of the gospel, the good news of their Lord? First, the church membership needs to become more sharply aware of what is the gospel the church is called into being to communicate. Do we really know what we believe, and are we able to communicate the convictions that are at the heart of our personal lives... and the substance of hope for the world?

The church must also learn to speak its faith, and share its insight by using the language of the world in which it is called to serve. The pious phrases of the eighteenth century will no longer do. We cannot

proclaim effectively the great answers in terms that obscure instead of clarify.

That the world is hungry for faith expressed in its own language is demonstrated by the phenomenal success of the books "Good News for Modern Man," and "Today's English Version of the Bible." The common man in our American society apparently was hungry for this kind of Bible... issue after issue have been printed, and the presses are unable to keep up with the demand.

But if the churches are to be effective communicators of the gospel, they must do more than know their faith, and know the language of the contemporary world. They must live the faith they proclaim.

Jesus declared that men would

know His disciples by their love for each other. The pagan world of the first few centuries understood this as a secret of the Christian power to communicate the Christian faith. One observer wrote, "Some Christians have come among us. How these Christians love one another!"

To know our faith, to be able to articulate it in the language of today, and to live it so fully the Christian difference will be seen... these are the answers to our problem of communication.

NEW TURFGRASSES

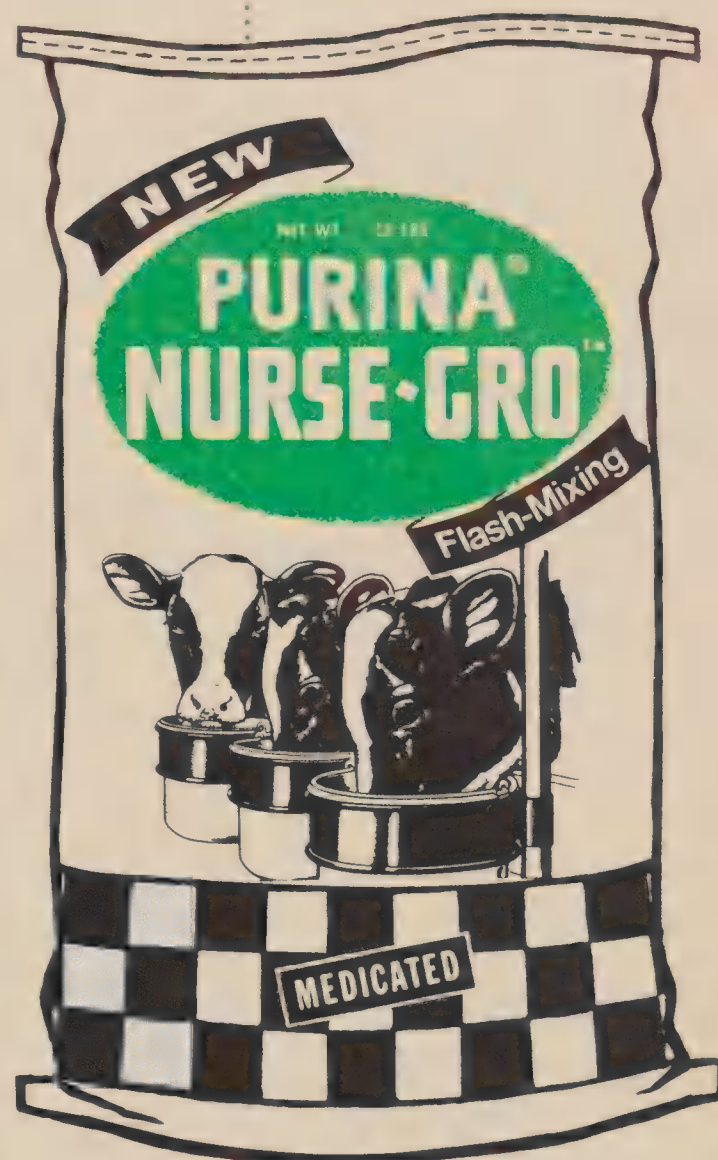
Seed for two new turfgrasses developed at Penn State... Pennstar Kentucky Bluegrass and Pennfine Perennial Ryegrass... is now avail-

able from commercial seed companies.

Turf experts believe Pennstar may be one of the best all-around turfgrass varieties available in the U.S. Field trials have shown it highly resistant to all three of the common diseases affecting Kentucky Bluegrass — stripe smut, rust and leaf spot. It has survived extended drought, is adapted to a variety of growing conditions, and needs only moderate to low fertility.

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Nurse-Gro mixes in moments to make proper feeding convenient and easy. Available in 50-lb. and 25-lb. bags—each bag has its own Nurse-Gro measuring cup.

Cruise

(Continued from page 12)

A three-day tour of the Gaspé Peninsula is the next highlight of our vacation. Here is some of the finest scenery to be found anywhere — rolling farmlands, picturesque fishing villages and unusual rock formations. From Perce, we'll take a boat to Bonaventure Island and Perce Rock. The island is a national sanctuary for 60,000 migratory birds.

Forests cover 75 percent of New Brunswick's land, and the province is noted for its excellent hunting and fishing. At Moncton, we'll see Magnetic Hill where cars coast uphill without power and the famous Tidal Bore, with the tide coming in on a wave and sweeping up the Petitcodiac River.

Nova Scotia is the last Canadian province we visit. We spend a day in Halifax and then drive through beautiful Evangeline Land on our way to Yarmouth. Here we board a ferry to cruise across the Bay of Fundy to Portland, Maine, and then on to Boston where our tour ends.

We feel sure you'll enjoy every day of this trip which takes us to all the places of interest in southeastern Canada. Like all AA and TSB tours, it is fully escorted, and the all-expense ticket covers practically everything.

Another Summer Vacation

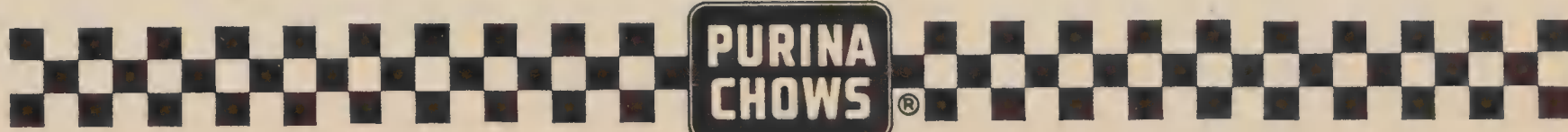
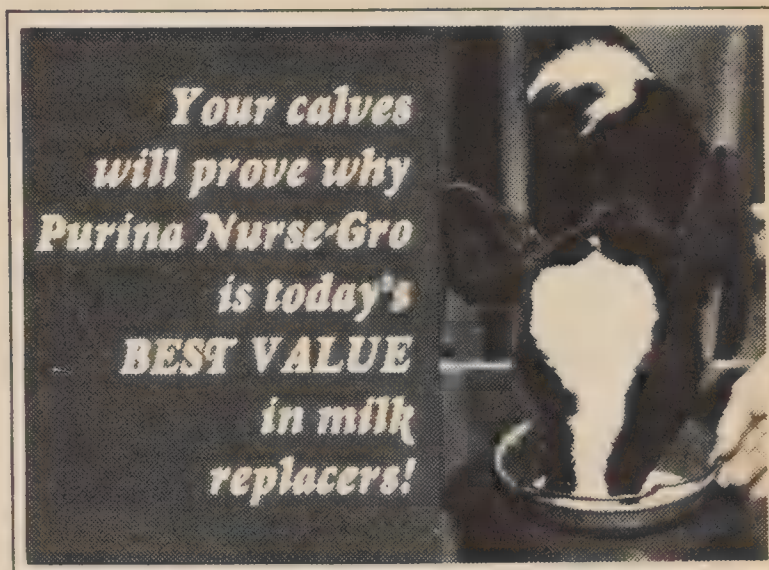
We have not yet received the itinerary from Travel Service Bureau, but there will be a Summer Rocky Mountain Vacation from July 22-29. This one-week tour will be very inexpensive, featuring an in-season vacation at off-season rates! Send today for the folder.

American Agriculturist, May, 1972

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VEGETABLES



Disposable Mulch — A new degradable paper mulch, with all the plus features of black plastic, but without the disposal problems, has been developed by Agway and is available to home gardeners and commercial growers. Intensive tests have shown that the new paper mulch remains intact throughout the growing season, but easily and harmlessly discs into the soil after harvest. It has presented no problem with mechanical harvesting techniques.

The new product is easily placed with Agway's more recent models of mulch-laying equipment. Earlier models can be modified to handle the paper sheeting.

In the home garden, the new mulch is put down by hand, and seeds or plants are set right through the paper. It is available in 46-inch by 2,000-foot rolls for the commercial grower.



Transplanter — New on the market is a machine that plants through plastic or paper mulch. Primary use is for setting peat pots through mulch, but special attachments transform the planter for two other planting uses.

One attachment permits planting seedlings and rooted plants; the other is a "plug mix" feeder which automatically agitates and meters out up to a half-cup of mix (with seeds and fertilizer in it). The mix is then deposited through the mulch. The attachments may also be used for planting in bare ground.

For complete information, write: Mechanical Transplanter Company, 1150 South Central Avenue, Holland, Michigan 49423.

Abnaki — Enough seed supplies of the Abnaki potato will be available this year for growers to get a good look at this brand new verticillium wilt-resistant variety. Tests at the Long Island Vegetable Research Farm over the past five or six years show Abnaki about equal to Katahdin in appearance, specific gravity and susceptibility to black spot. In soils where verticillium wilt was not a problem, it has equaled or outyielded Katahdin.

Weakest point discovered in Abnaki to date is its susceptibility to hollow heart in years when this is a problem. This is especially true of the larger-size tubers. Abnaki develops tuber size quite early in the growing season and therefore might be handled like a mid-season variety, such as Chippewa. Although Abnaki starts to sprout slightly sooner than Katahdin, it can also be handled as a storage variety.

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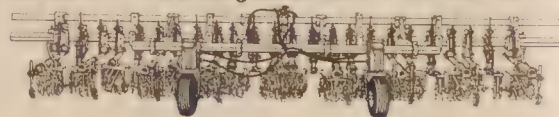
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American Agriculturist, May, 1972

In the foothills of the Pocono Mountains a few miles from Stroudsburg, Pennsylvania, is a unique farm museum of interest to those who prize the heritage of our country's past. Here is the story of . . .

quiet valley

Quiet Valley Farm Museum is the original 72-acre homestead established in 1765 by a German immigrant family named Zepper.

The Zeppers put down firm roots in their new homeland, and the farm remained in the family until 1913. In 1958, when the farm was purchased by Wendell and Alice Wicks and their daughter and son-in-law, Mr. and Mrs. Gary Oiler, almost no improvements had been made . . . no plumbing or electricity.

Much of the original furniture and equipment was still in the house and outbuildings. There were quilts, kitchen and pantry equipment, farm tools, all in good order and meticulously preserved.

With the idea of creating a living museum . . . where the humble, self-sufficient way of life that once typified rural America would become real and meaningful to today's generations . . . the Wicks family began restoring and rebuilding activities. In the summer of 1963, Quiet Valley Farm Museum was open to the public.

Guides

Since that time, tours have been conducted for school groups by appointment from early-May to mid-June. During the summer, continuous tours limited to groups of 20, are open to the general public. Interest has grown; in 1971, there were 10,000 visitors!

The three generations of the Wicks family now at Quiet Valley are aided by dedicated professionals and volunteers who play out the role of family members and serve as living-working tour guides.

The Zepper family had been typical of most German immigrant families in the possessions they brought with them across the ocean . . . an iron pot and a few iron tools. Everything else they needed for food, clothing and shelter had to be made by their own labor, skill and ingenuity out of what the good earth provided.

Shelter was a prime consideration, and undoubtedly the first building was the Bank House, a log construction built into the side of a bank. The cave-like kitchen, dominated by its great fireplace, and the adjoining cold room, which served for storage, may have been all that were built that first summer; the upper floor, with its sleeping and working areas, was added later. A third story provided sleeping quarters for the children, as well as a cool, dry storage where strings of dried fruits and vegetables were hung from the ceiling.

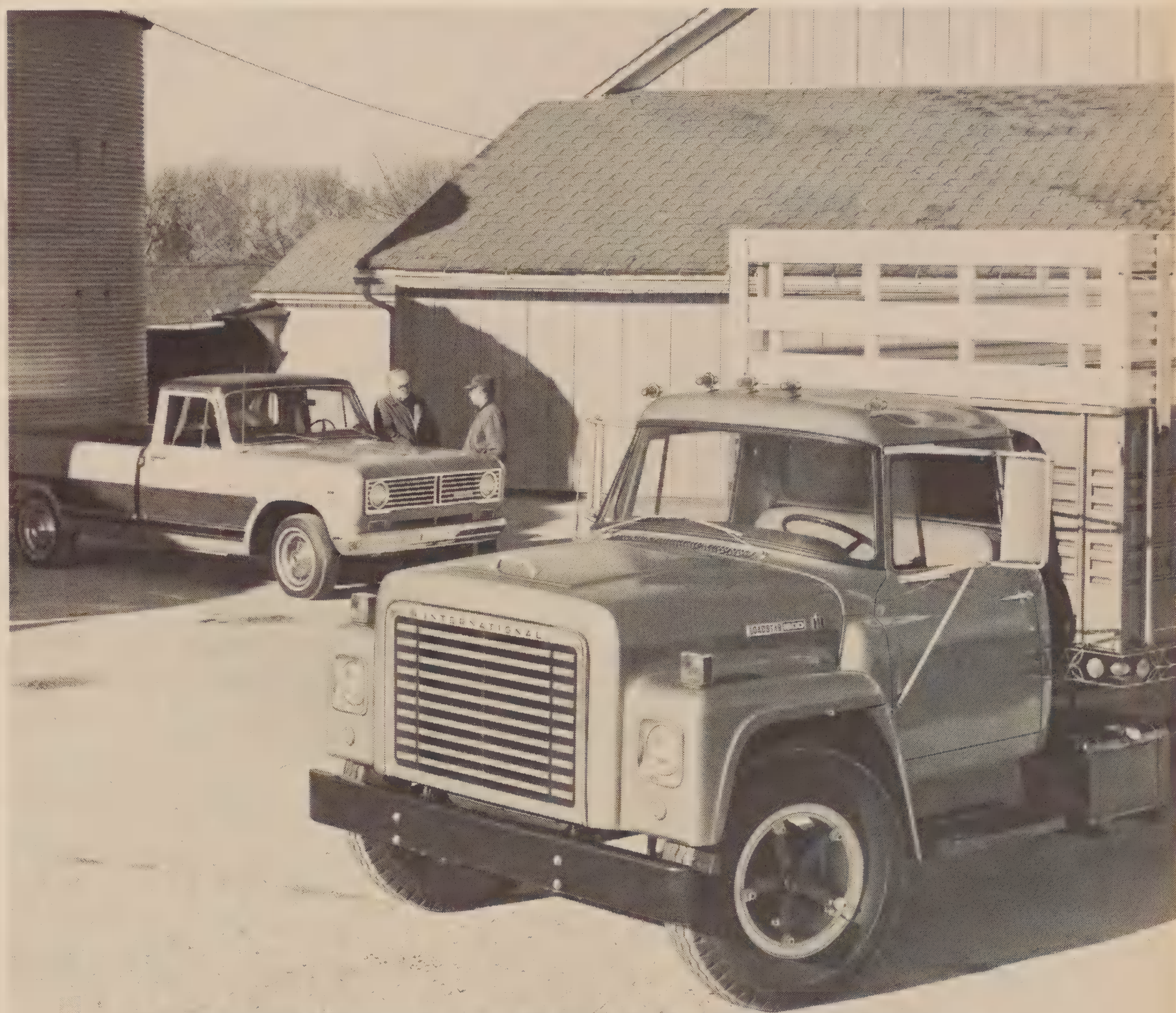
The Spring House, whose original walls are still intact, served a double purpose in those days. Besides protecting the water supply and cooling food, it was a guardhouse in the

occasional Indian attacks. Next to it is the hand-dug well with its original stonework, except for some reconstruction above ground level.

A simple log shed or lean-to buildings preceded the present barn, built

(Continued on page 17)

The Pennsylvania Dutch bake oven was used summer and winter, rain or shine.



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MOVING?
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horse judging contest

FIVE pictorial horse judging classes were published in the February, 1972 issue of AMERICAN AGRICULTURIST in a contest that closed April 15. Competition was open to residents of the New England States, New York, New Jersey, Delaware, Maryland and Pennsylvania.

The suggested official placings, scoring key and reasons were prepared by Professor Emeritus H. A. Willman of Cornell University, Ithaca, New York, in collaboration with: Harold Cornish, Elmira, New York; Professor Melvin Bradley, Columbia, Missouri; John Briggs, Ithaca, New York; Robert Millier, Weedsport, New York; Professor S. W. Sabin, Ithaca, New York; and Jack Timmons, Medina, New York.

Special thanks are extended to all the contest cooperators, and especially to those horse owners who, as a cooperative gesture of good will, made their horses available for the pictures, all taken by Mr. Willman.

Class 1

We placed this class of Arabians 2-1-3-4. In a close placing, we liked 2 over 1 on size, depth of body, turn of top and overall balance. Number 2 is longer and leveler over the croup, has more muscling in the forearm and quarters, and stands more squarely on the front feet and legs. We would grant that 1 is cleaner through the neck and more prominent in the withers.

In the middle pair, we placed 1 over 3 primarily on style and breed character. Number 1 shows more character about the head, is cleaner in the neck, sharper at the withers and straighter on the hind legs. We grant 3 an advantage in substance.

In a close bottom pair, we liked 3 over 4 on size, substance and scale. Number 3 is more smoothly turned over the top, longer in the neck and longer and leveler in the croup. We grant that 4 stands more correctly on the hind legs and is shorter in the back than 3 but does not follow the number 2 and 1 horses as closely in type.

Class 2

We placed this class 4-2-3-1. In a

fairly close top pair, we gave 4 the advantage over number 2 in style and overall balance. Number 4 is sharper through the front end, blends more smoothly at the neck and withers, is closer coupled, longer and more smoothly turned over the croup, deeper in the rear flank and shows more muscling and balance in the hindquarters. We would grant that 2 shows more character about the head, is more heavily muscled through the arm and forearm and is deeper, wider and fuller in the chest.

In the middle pair, we easily placed 2 over 3 on quality and character. Number 2 follows 4 more closely in type, shows more character about the front, is deeper in the body and stands on flatter bone that shows more definition. We would grant that 3 is more smoothly turned over the top.

In the bottom pair, we placed 3 over 1 on size, scale and balance. Number 3 is longer in the neck, more prominent at the withers and is longer and leveler in the croup. We would grant that 1 shows more quality of bone but consider this horse too short and steep in the croup and too thick in the neck to place higher in this class.

Class 3

We placed this class of horses 3-4-2-1. In a close pair, we placed 3 over 4 on symmetry and balance. Number 3 is more modern in type, more nicely turned over the top, leveler in the croup, more heavily muscled in the quarters and stands more correctly on the hind legs. We would grant that 4 has an advantage in prominence and depth of shoulder, has more depth of body and stands on more bone.

In the middle pair, we liked 4 over 2 primarily on style and quality. Number 4 is a more athletic horse that is taller and follows 3 more closely in type. Number 4 is leaner in the neck, sharper in the withers, and stands on flatter, cleaner bone. We grant that 2 has more substance of bone and is more powerfully muscled.

In the bottom pair, we liked 2 over 1. Number 2 shows more stock horse

breeding and has more muscling over the top, down through the quarters and gaskins and in the arms and forearms. We grant that 1 is sharper and cleaner through the neck and withers but 1 lacks too much in muscling to place higher in this class.

Class 4

We placed this class of horses 1-3-4-2. We considered 1 and 3 a fairly close top pair having placed 1 over 3 on overall symmetry and balance. Number 1 is more nicely turned over the top, is flatter in the bone and stands more squarely on the feet and legs. We grant that 3 is more prominent at the withers and sharper through the front end.

In the middle pair, we easily placed 3 over 4, because 3 is deeper in the body, shows more character and follows 1 more closely in type. Number 3 stands straighter in front, is sharper and more prominent in the withers, cleaner in the neck, deeper and more sloping in the shoulder, longer in the croup and deeper in the body. We grant that 4 is shorter in the back and stands more correctly on the hind legs.

In a close bottom pair, we placed 4 over 2 primarily on style and quality. Number 4 is closer coupled, shows more quality of bone, and has more slope to the pasterns. We would grant that 2 has more size and is longer in the croup and deeper in the body.

Class 5

We placed this class of Appaloosas 1-2-4-3, considering 1 a good top and 4 and 3 a bottom pair. We like 1 over 2 on overall quality, muscling and balance. Number 1 is more heavily muscled in the arms, forearm and quarters and is a more athletic appearing horse that is longer in the neck, cleaner in the throttle and more refined in the bone. We grant that 2 stands more squarely and is shorter in the back but we do not consider 2 modern enough in type to place higher in this class.

In the middle pair, we easily went to 2 over 4 on style, symmetry and quality. Number 2 shows more character about the head, is cleaner in the neck, stronger in the back and more acceptable in the set of front feet and legs. We would grant that

(Continued on page 17)

SCORING KEY

Each class has 24 possible variations in arrangement of individual horses from top to bottom of the class. Each variation is listed, along with the number of points to be scored for that choice. For example, if you arranged Class 1 as 2-3-1-4, then your score for that class is 42 points.

Class 1	Class 2	Class 3	Class 4	Class 5
2 1 3 4 50	4 2 3 1 50	3 4 2 1 50	1 3 4 2 50	1 2 4 3 50
2 1 4 3 47	4 2 1 3 46	3 4 1 2 45	1 3 2 4 48	1 2 3 4 48
2 3 1 4 42	4 3 2 1 43	3 2 4 1 43	1 4 3 2 42	1 4 2 3 45
2 3 4 1 31	4 3 1 2 32	3 2 1 4 31	1 4 2 3 32	1 4 3 2 38
2 4 1 3 36	4 1 2 3 35	3 1 4 2 33	1 2 3 4 38	1 3 2 4 41
2 4 3 1 28	4 1 3 2 28	3 1 2 4 26	1 2 4 3 30	1 3 4 2 36
1 2 3 4 47	2 4 3 1 47	4 3 2 1 48	3 1 4 2 48	2 1 4 3 43
1 2 4 3 44	2 4 1 3 43	4 3 1 2 43	3 1 2 4 46	2 1 3 4 41
1 3 2 4 36	2 3 4 1 37	4 2 3 1 39	3 4 1 2 38	2 4 1 3 31
1 3 4 2 22	2 3 1 4 23	4 2 1 3 25	3 4 2 1 26	2 4 3 1 17
1 4 2 3 30	2 1 4 3 29	4 1 3 2 29	3 2 1 4 34	2 3 1 4 27
1 4 3 2 19	2 1 3 4 19	4 1 2 3 20	3 2 4 1 24	2 3 4 1 15
3 2 1 4 31	3 4 2 1 33	2 3 4 1 34	4 1 3 2 32	4 1 2 3 33
3 2 4 1 20	3 4 1 2 22	2 3 1 4 22	4 1 2 3 22	4 1 3 2 26
3 1 2 4 28	3 2 4 1 30	2 4 3 1 32	4 3 1 2 30	4 2 1 3 26
3 1 4 2 14	3 2 1 4 16	2 4 1 3 18	4 3 2 1 18	4 2 3 1 12
3 4 2 1 6	3 1 4 2 8	2 1 3 4 8	4 2 1 3 10	4 3 1 2 12
3 4 1 2 3	3 1 2 4 5	2 1 4 3 6	4 2 3 1 8	4 3 2 1 5
4 2 1 3 22	1 4 2 3 21	1 3 4 2 19	2 1 3 4 26	3 1 2 4 27
4 2 3 1 14	1 4 3 2 14	1 3 2 4 12	2 1 4 3 18	3 1 4 2 22
4 1 2 3 19	1 2 4 3 18	1 4 3 2 17	2 3 1 4 24	3 2 1 4 20
4 1 3 2 8	1 2 3 4 8	1 4 2 3 8	2 3 4 1 14	3 2 4 1 8
4 3 2 1 3	1 3 4 2 4	1 2 3 4 3	2 4 1 3 8	3 4 1 2 10
4 3 1 2 0	1 3 2 4 1	1 2 4 3 1	2 4 3 1 6	3 4 2 1 3

Valley

(Continued from page 15)

around 1830. Animals were, and are now, housed in the lower level in winter. Hay mows on either side of the main working floor now display the numerous ingenious tools left in the barn . . . a grain cradle, fanning mill, corn planter, dog treadmill, plows and other harvesting equipment are but a few. Most of these are demonstrated at the tours.

Visitors can also observe various means of transportation . . . buggy, sleigh, cutter, or oxcart, and various farm wagons.

Stocked

The farm museum is completely stocked with animals typical of past eras, including geese and guinea hens. The guinea hen was the farm burglar alarm. When she sensed something was wrong, she started the message off to the geese. Then they relayed to the dog, each sounding off in turn.

The original Bake Oven at Quiet Valley was a free-standing stone building, and the present one is reconstructed on its original site. The eye-level oven itself, a domed area covered with clay, has a capacity of 28 loaves of bread. Weekly bake day was, and is again, Saturday. Visitors enjoy the fragrance of baking bread, and can taste a sample when it comes out.

As the Pennsylvania Dutch woman came up in the world, she acquired a Wash House. Some other jobs, such as butchering, were also done there. Over the years, the man of the family acquired a Workshop, with the hand tools he needed for putting up his buildings, furnishing and repairing them; a foot treadle wood lathe for turning bowls, furniture and rolling pins; a special machine for making brooms.

Down through the years, as the family grew to include three or four generations at a time, there just wasn't room in the house for all of them, so a new log cabin was raised, the Granny House for the older generation. The present Quiet Valley family uses this house to demonstrate and display the textile industry.

Brought In

The only structure not on the original farm is the Headquarters building. It is an old log cabin dismantled and transported from Bangor, Pennsylvania . . . and rebuilt, log by numbered log . . . at the entrance to the farm as a welcoming station and gift shop.

So the creation of Quiet Valley has been accomplished by the Wicks and Oiler families. For many years,

however, overhead and operating costs have consumed most of the income from admissions, and there is growing concern among local people and visitors about the continued operation of what has become a unique and delightful museum. The Historical Farm Association, with well over 100 charter members, has now been formed, and the group plans to raise funds to purchase Quiet Valley and assure its continued existence.

The Association is already affiliated with Living Historical Farms, an organization to encourage and assist living farm museums across the country. Recent word from the Pennsylvania Historical and Museum Commission is that Quiet Valley is now included in the Registry of

Historic Sites and Landmarks.

Your membership in the Historical Farm Association would be welcome. For full information, write to Wendy Mazer, R.D. 3, Box 254, East Stroudsburg, Pennsylvania 18301, who supplied the information for the Quiet Valley story.

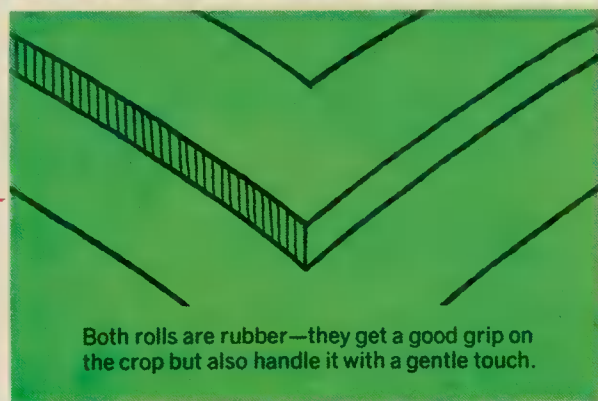


A foot pedal wood lathe in operation at the Quiet Valley Workshop.

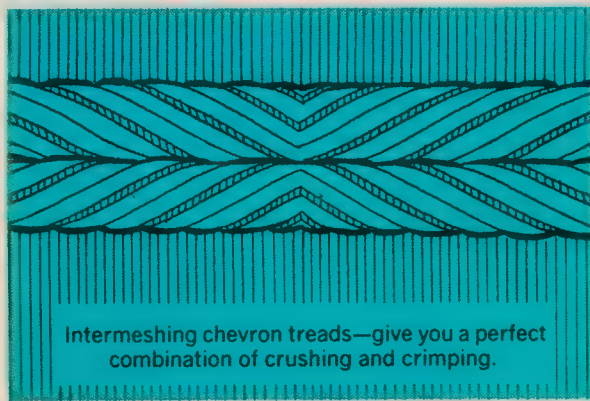
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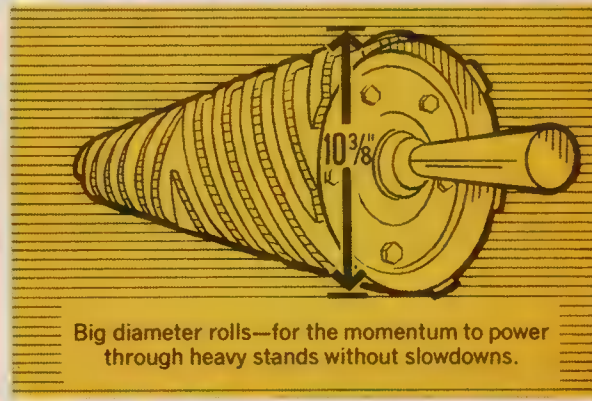
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Both rolls are rubber—they get a good grip on the crop but also handle it with a gentle touch.



Intermeshing chevron treads—give you a perfect combination of crushing and crimping.



Big diameter rolls—for the momentum to power through heavy stands without slowdowns.

has rolls like this.

HORSE JUDGING

(Continued from page 15)

4 has more size, scale and length of croup but he lacks the overall balance that is shown by 1 and 2.

In a close bottom pair, we preferred 4 over 3 on general type. Number 4 is taller, has more scale and is more modern in type. We grant that 3 stands more squarely on the front feet and legs and is closer coupled and stronger in the back but we consider him too short and too thick in conformation to place higher.

American Agriculturist, May, 1972

If it weren't for these rolls, a Haybine® mower-conditioner would wrap and plug just like ordinary mower-conditioners.

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Shouldn't you pay a call on your New Holland dealer before getting all wrapped up in this year's haying?

Remember, if it isn't New Holland, it isn't a genuine Haybine.

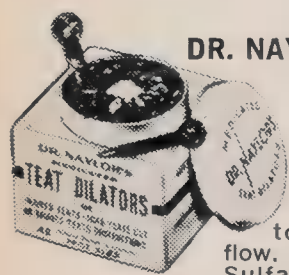
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For cows' teats that leak milk. Constricts round muscles at end of teat. A liquid to apply over end of teat after each milking for a few days only.

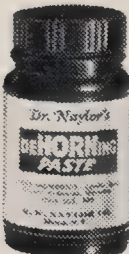
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May 14-17 - Annual Convention, American Feed Manufacturers Association, Sheraton-Park Hotel, Washington, D.C.

May 20 - New England Angus Association Spring Sale, University of New Hampshire, Durham, N.H.

May 21 - Annual Buck and Kid Show, sponsored by NYS Dairy Goat Breeders Association, Fairgrounds, Altamont, N.Y.

May 21 - Draft Horse Flowing Contest, sponsored by NYS Draft Horse Club, John Beard Farm, East River Road, near Homer, N.Y.

May 29 - Memorial Day

June 3 - 16th Annual Steuben County Dairy Festival, Bath, N.Y.

June 24-25 - Claremont Garden Club Standard Flower Show, Claremont Junior High School, South Street, Claremont, N.H.

June 25 - New England Milking Shorthorn Field Day, Charles Noyes Farm, Berwick, Maine

June 25 - 30-Mile Competitive Trail Ride, sponsored by Finger Lakes Riding Club, Ithaca, N.Y.

June 25-28 - Annual Convention of International Apple Institute, White Face Inn, Lake Placid, N.Y.

June 28-30 - New York State 4-H Congress, Cornell University, Ithaca, N.Y.

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FLOOR SCRAPERS

The mechanical floor scraper for manure handling in free stall barns is a fairly new development. These units have been on the market in the U.S. for about a year, but have been available in Europe longer than that. Charles Wood, on the White Wagon Road in Chemung, New York, is one of the "early birds" to use this equipment in the Northeast.

Basically, all of these units use a reversible motor-driven endless chain or cable to move a scraper blade along a free stall or feeding alley to scrape the manure into a central collection point. The operating motors can be programmed with a time clock to operate automatically as many times a day as desired.

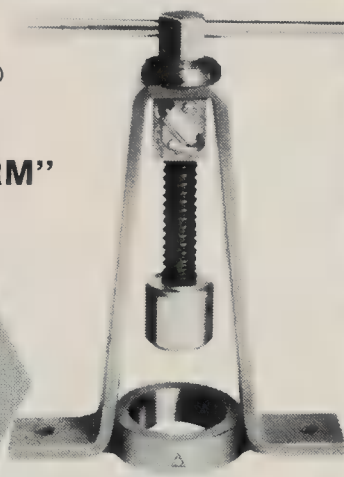
The scraper units operate in the alleys while the cows are present. Chain or cable speeds are set slow enough to allow the animals to step over the scraper as it comes along. Several U.S. manufacturers have units in the experimental stage. The only unit commercially available at this time is made by Badger-Northland, Kaukauna, Wisconsin 54481. Write them for specific information.

Other companies whose machines are not ready to be marketed will also send information on request. They are:

Starline, Inc.
Harvard, Illinois 60033
Hedlund Co.
Boyceville, Wisconsin 54725
Acorn Co.
Stevens Point, Wisconsin 54481

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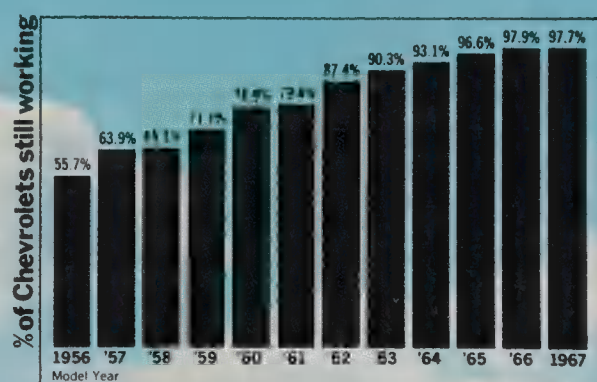
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For reduced labor and increased efficiency in your feed-handling operations, consider the

auger wagon

by Wes Thomas

IF you cannot justify . . . or afford . . . a fully-automatic feed-handling system, perhaps you should seriously consider an auger wagon arrangement.

Auger wagons have one horizontal auger running along the bottom of a V-shaped box, and one vertical auger which elevates and discharges the material. Used primarily as bulk unloading feed wagons, they can also be used to mix or blend several ingredients.

Instead of the continuous-flow principle of completely automatic systems, these wagons use the batch-process principle. Your tractor can provide the drawbar power for pulling the wagon, and the tractor power-take-off powers the mixing and unloading operations.

Auger wagons are especially flexible because they are implements rather than real estate. They can be used in conjunction with existing buildings, which are often widely scattered or otherwise unsuitable for the installation of any type of permanent continuous-flow system.

Use of these wagons isn't limited to feed handling. If you field shell

or combine your corn, they can be used to transport and unload the shelled grain. The same is true for small grain from the combine.

At spring planting time, seed grain or fertilizer can be hauled to the field, and unloaded directly into the planter or drill. The time saved is especially important if you are using a big planter, or a multiple-hitch drill.

Quite a variety of mixing machinery arrangements is available. The more simple ones are less expensive and may be satisfactory for handling feed for finishing hogs or cattle. However, if you plan to mix in antibiotics, medication, or other concentrates for young pigs or poultry, the wagon must be capable of doing a very thorough mixing job. Here are some alternatives:

Mixing While Unloading — The horizontal auger at the bottom of the V-shaped single-compartment bed delivers the feed to the outside vertical auger. From the top of this auger, the feed flows by gravity down a chute into the feed bin.

Mixing by Recirculation — The outside chute is arranged so that

the feed can be directed back into the wagon bed. This provides for extra mixing in addition to that which results from the unloading process itself.

Two Unequal-Size Compartments — Flow of ingredients from the two bins can be regulated to the single bottom auger. Mixing takes place during unloading, primarily in the discharge auger. This two-ingredient design permits changing ingredient ratio while unloading a single load.

Recirculation With Two-Compartment Wagon Beds — Layers of feed ingredients are loaded into one compartment, then augered into the second compartment to provide mixing. A second set of feed ingredient layers is then placed in the empty compartment. The compartment of mixed feed is unloaded first. Then the remaining layered chamber is mixed and unloaded. Some machines include an arrangement for disengaging or covering the auger in the receiving bin.

Recirculation Plus Added Agitation — This type of outfit is basically similar to the regular recirculating

loads you'll be handling may weigh as much as three tons, and the load is relatively high off the ground as compared to a regular wagon. Also consider the possibility of soft, muddy feedlots, and hillsides or sloping ground.

Available arrangements range from single axles using automobile tires through single-axle, dual-wheels using truck tires, single-axle with oscillating tandem wheels, to tandem dual axles using truck tires.

In addition, a regular four-wheel type running gear can be used. Spotting the wagon to permit direct unloading into a feeder often requires considerable maneuvering and backing, so be sure to take this into account when selecting the running-gear arrangement.

The discharge auger and chute must reach all the feed bins and hoppers you want to fill, but an auger that's too long can be as bad as one that is too short . . . especially if you plan to use the rig in confined spaces near or inside buildings.

Some outfits include a vertical discharge auger plus a second horizontal auger for long-reach situa-

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Platform, stake, or tractor—made tough to last. Up to 44,500 pounds GVW with tandem axles. Double-walled steel cabs, steel inner fenders, added strength where it's needed. Short bumper-to-back-of-cab dimension increases profit-making efficiency.



variety. However, several extra horizontal augers are added at various levels in the wagon box. These extra augers help mix the feed more thoroughly and permit mixing in limited amounts of molasses.

The running gear or wheel-and-axle arrangement of the wagon deserves careful consideration. The

tions. A hydraulic cylinder can be used to position the horizontal auger.

In some cases, the wagon hitch and pto connecting shaft can be attached at either end of the wagon. Thus, the wagon can be arranged so that the discharge auger is at the front or the rear to provide the most convenient unloading arrangement.

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PLASTIC DRAINS

Plastic tubing has been used experimentally for many years as underdrain material. The Dutch, as far as I know, were first to use plastic on a field scale in some of their drainage installations. They were quick to point out that the chief saving was in labor of installation. When the price of plastic rose, they pointed out that they did go back to regular clay drains.

Currently, as you have indicated, plastic is widely used in the mid-western U.S.A. Everyone here in the Northeast would agree with your prediction that use of plastic will increase. This is, of course, a high labor-cost influence.

I have not had an opportunity to discuss the relatively new Rural Environmental Assistance Program (REAP) with the state office people in ASCS, but I am under the impression that they would like to eliminate drainage cost sharing. Supposedly, these funds could better be utilized for cost sharing on manure storages or environmentally-approved manure handling systems.

The Soil Conservation Service is using common sense in applying its national specifications to plastic drains in the Northeast. Few mid-western soils are stony. In New York State and the Northeast, 85 percent of our soils are stony.

Plastic drains, where cost shared, should be cradled in a properly-cut groove in the bottom of the trench. It is difficult to "groove" a rock!

Back-filling a trench in stony soil drained by plastic can also be a traumatic experience. It is disagreeable to have to go back and replace rock-ruptured sections! Drainage contractors who do much of the actual installation under the general supervision of the SCS don't like to dig up drains and replace them.—Paul Zwerman, Professor of Soil Conservation, Cornell University, Ithaca, New York.

APPLE SUICIDE

After three years of tougher-than-usual sledding in the apple business, some growers have petitioned for a vote on whether to continue our Apple Marketing Order.

It was bound to happen, especially when prices are down. That is when you notice that some things that are supposed to help you don't seem to be doing that. So, if you don't think it's doing the job, you get rid of it . . . and look at all the money you'll save!

There must be more to it than that. Why did we have a marketing

order in the first place? Why did other organizations and farm programs follow suit? An industry as vast, widespread and concentrated as ours, that peaks its production at one time of the year, needs the extra boost to keep it in front of the public.

True, C. A. storages, new varieties, etc., now keep apples available year 'round. This is technology at work, and it has been doing a great job increasing yields, creating better spray materials and equipment . . . just about anything you can name except one thing, and that's selling your crop!

To sell it you must create demand; mainly two things do this . . . a short crop and an excellent promotion campaign. Seeing as how short crops are undependable for paying expenses annually, then we have to do something to sell the crops that more than meet demand. This is where marketing orders should fit in, and where some of us part thinking. But we do agree on one thing; the apples have to be sold and at a profit, so let's start from there.

Promotion creates demand.

We already have the men, the talent, experience and the contacts made over the years that the order has been in effect. The only thing lacking is the money. Costs have been going up steadily. Crops get bigger and it costs more to promote them as well.

It's like spraying your orchard for scab. Just because you get one infection period after another and the rain washes the chemical off, you don't quit spraying, even if it costs more, because you know what happens if you do.

If we spent as much on promotion as we do on our spray bill we might be able to make a living again with some left over.

Maybe we could tie costs of promotion in with size of the crop nationally . . . bigger the crop, the more we pay . . . smaller, the less.

Don't tell me selling isn't as important as raising apples. True, we started pretty much in fruit growing because we like to raise apples, but times are changing. It's a do-it-yourself world, so let's back the fellas that know how! — William Behling, Mexico, New York.



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GARDEN GUIDE

Another in the series of volumes comprising "The Time-Life Encyclopedia of Gardening" is off the press. This one . . . the fifth . . . is "Flowering House Plants."

Clearly-written and well-illustrated to provide a practical guide for

gardening operations, these volumes are also exceptionally beautiful, with hundreds of color photos and precise water color paintings of shrubs, trees and flowers.

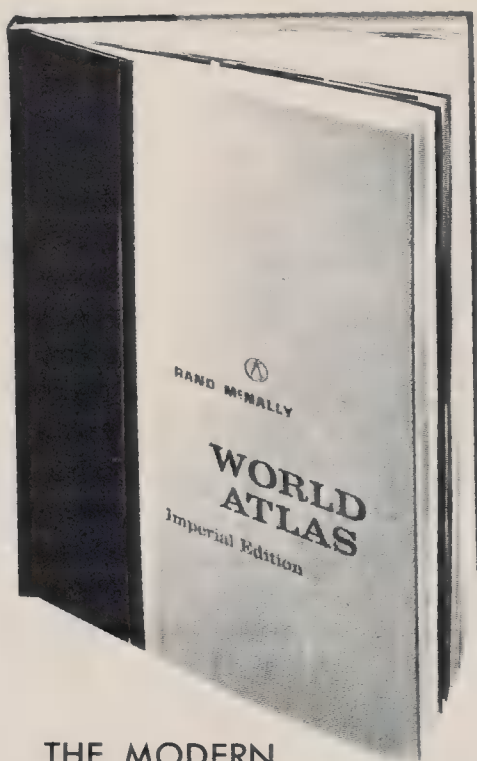
You can get full information about this gardening series by writing to: Time-Life Books, Rockefeller Center, New York, New York 10020. Be sure to tell them we sent you!

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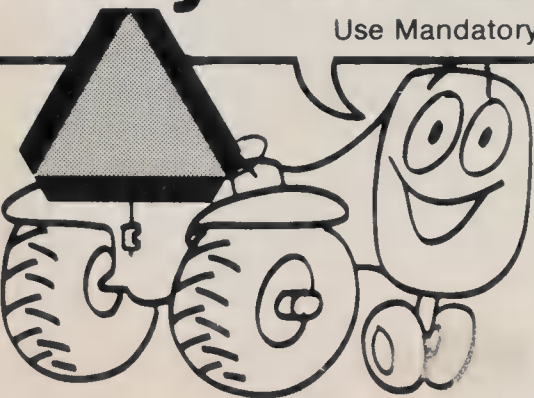
The Ground-driven Kneib "pop up" bale loader never damages bales, round or square. Easy to pull. Attaches quickly. Minimum moving parts, virtually maintenance free. Converts from manual (using man to stack) to auto-loader (using driver only) in minutes. And now Bush Hog's built-in reliability comes with it. Save money on hay loading for years to come!

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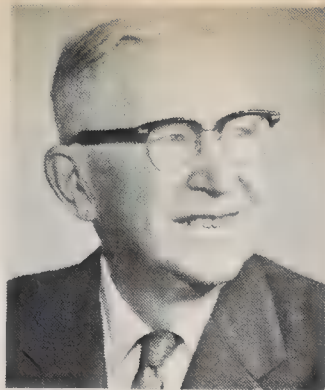
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they won't take axes to real estate taxes

by Amos Kirby
New Jersey Editor

ANYONE anticipating fast relief from real estate taxes in New Jersey . . . forget it! It will not happen in 1972; to play it safe, don't count on it for 1973.

The public has been informed that a state real estate tax of \$1 per hundred, and an income tax, could reduce the tax burden on real property by 40 percent.

Few, if any, taxpayers are opposed to tax reform. In theory it sounds like comforting music. Putting it into effect is another matter. It's highly unlikely that an income tax will be advocated in an election year. In a legislature where the political parties are almost equally divided, it is doubtful that such a tax will be enacted even in 1973.

A legislature that cannot agree on the establishment of congressional districts will probably not even consider the tax reform project. In short, the whole question is one big "IF."

It's certain that the income tax is coming, but for 1972, one might better plant crops that will provide the money to pay the usual real estate taxes.

EGGS AND MAREK'S DISEASE

About a year ago at a conference in Ocean City, Maryland, I heard the control of Marek's disease hailed as the greatest development in the poultry industry in a decade. It probably was but few, if any, had enough confidence in the control (or perhaps it was lack of foresight) to cut back on the number of layers placed in their flocks.

The Marek's disease cure cut mortality in laying flocks so significantly that something like 20 percent more layers than usual continued producing. The resulting egg surplus sent prices to such a low level that producers have been selling eggs at 10¢ to 15¢ per dozen under cost.

OTHER LOW FARM PRICES

In recent months, this writer has covered a lot of ground and the story is much the same. The cattle ranges in Nebraska, western Colorado and Wyoming have had fewer animals to market. Corn is plentiful in Illinois, Iowa and other states, but there are fewer cattle to consume it. Arizona feedlots have fewer cattle.

People may go hungry for beef and pork within a year rather than in 1980 or '90!

Mexican winter vegetable growers have been shipping thousands of carloads of tomatoes, peppers, egg plants and strawberries into the United States and their returns have hardly paid the costs of production and marketing.

Ask any fruit or vegetable grower in New Jersey, Long Island, Delaware, or even Maryland, and the story is the same . . . prices to growers in recent years have actually been no higher than they were 10 years ago. Today it is popular for

consumers to demand price freezes on crops at the farm level, when actually farm prices have been frozen for years.

Tomato prices for processing have shown no change in the last five years. There have been slight variations regarding grading, but actual prices, be they in New York, New Jersey, Ohio or California are the same in 1972 as they were back in 1967 or even earlier.

For growers of white potatoes in Maine, Long Island, or New Jersey there have been only slight seasonal price changes. For corn, turkeys, and other processed crops the story is much the same. If one takes production costs into consideration, dairy prices also have been frozen for years.

BEEF AND PORK

The red meats . . . beef and pork have been listed as basic causes for the high cost of living. Prices on these products are higher than one year ago, but there is a good reason. Low prices in preceding years caused growers to cut back on their operations. Higher prices on beef and pork are largely due to buyers bidding for the limited supply.

Contrast the time required for growing some crops and the production of beef. One can grow a crop of radishes from seed in 26 days. One can produce a crop of corn in 90 days, but it requires up to three years to produce a pound of beef after the rancher has decided to increase his herd.

BLUE PRINT FOR AG

What is the future of agriculture in New Jersey? This is a question confronting every grower. Francis Raymalley, director of New Jersey's Blue Print Commission, is convinced there will be a strong agriculture

(Continued on next page)

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in the state for a long time to come. With land being purchased by speculators under options and carrying a price tag of as much as \$3,000 an acre, many are willing to sell, retire or move to other areas. However, Raymalley bases his position on the fact that 60 percent of the land is still in the ownership of growers and foresters.

The Blue Print Commission, appointed by Governor Cahill, will have its report completed late in 1972. There is ample evidence that agriculture will be a most important industry for the foreseeable future.

The prices being offered New Jersey growers under options are still below prices being paid for land in other states. In California there is land that is devoted to cash crops that carries at \$8,000 an acre price tag. Arid land in New Mexico, still in sagebrush so needing irrigation, is being priced at \$1,500 an acre.

In my recent visit with Dr. Merle Jensen, a former New Jersey resident now at the Arizona Experiment Station at Tucson, he expressed the belief that there will always be farming in the Garden State. He sees a new type of farming, much of it under plastics. His research shows that under good management one may grow as much as 260 tons of cucumbers per acre or 100 tons of tomatoes.

CROPS TO PLANT

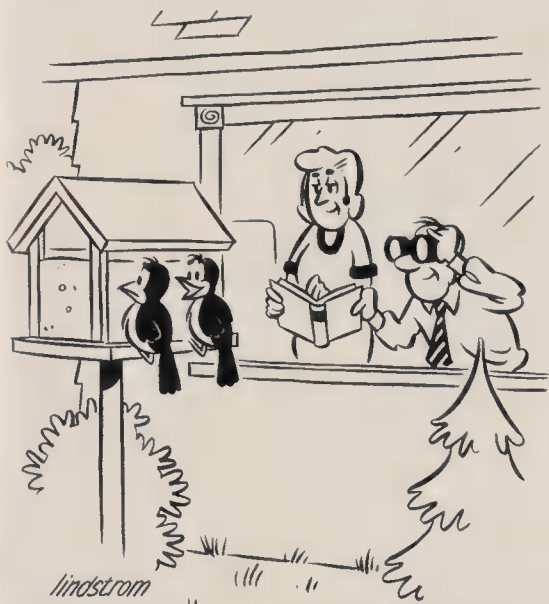
There may be a substantial increase in corn and soybean acreage. The corn blight is not likely to be a factor in 1972, due to the ample supply of resistant strains. Land that may be removed from tomatoes and potatoes may go into corn.

The soybean looks most promising. It is a low-cost crop to plant and harvest and calls for a minimum of labor. Yields of soybeans in New Jersey in 1971 reached a new high on a number of farms and this is an incentive to expand.

The soybean is now in first or second place as the largest cash crop in the United States. Indications are that domestic and foreign demand for soybeans, oil and meal will be good in 1972.

A county agent who has followed the soybean market suggests that growers with a few extra acres might do well to plant this crop rather than some of the high-risk crops.

Delaware is a nearby state that has moved into corn and soybeans, thus replacing vegetables with their high cost and high labor requirements.



"Look at it this way... the birdseed isn't charity as long as we're enriching their leisure hours and providing them with a deep sense of fulfillment."

American Agriculturist, May, 1972

NO SMOKE

Beginning July 5, 1972, a 30-second test of an auto's exhaust system will become part of the regular motor vehicle inspection routine in New Jersey. Tests will be in compliance with Chapter 15 of the state's Air Pollution Control Code, which forbids operation of any vehicle that emits visible smoke from its exhaust or crankcase.

Here's what Chapter 15 is all about: In 1966, the New Jersey Legislature empowered the Department of Environmental Protection to establish motor vehicle standards and tests in cooperation with the Division of Motor Vehicles. The Division will add the exhaust-system test to its ex-

isting motor vehicles inspection system. New vehicles will be inspected by the dealer before delivery to the buyer. The state police will enforce the highway standards. Motorcycles and cars with engines of less than 50 cubic inch displacement are excluded from the regulations.

Chapter 15 imposes carbon monoxide and hydrocarbon limits for cars and other light duty vehicles in three progressive steps becoming effective in 1972, 1974 and 1975.

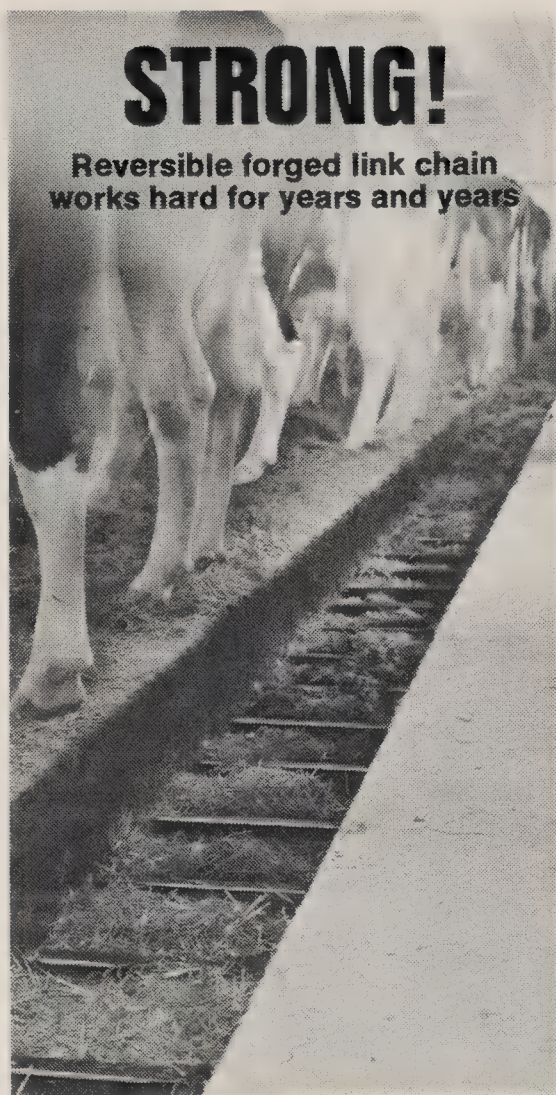
Compliance with Chapter 15 is voluntary the first year. Operators of vehicles that fail to meet minimum pollution standards during inspections will be encouraged to have necessary servicing done, but reinspection will not be required. In most cases, a basic engine tuneup

will be all that is required to correct the problem.

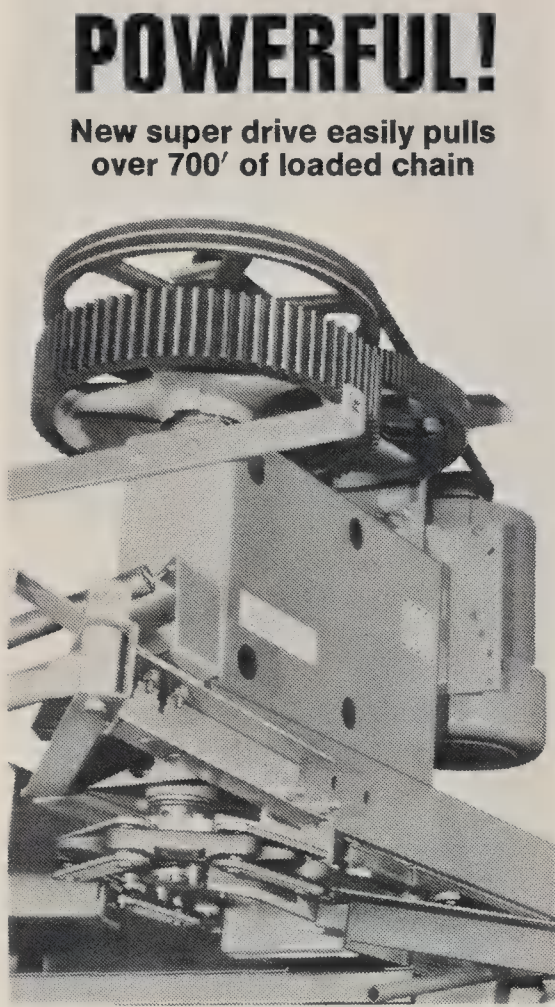
Strict enforcement, with rejection and reinspection, will begin on July 1, 1973.

It is not the intent of the New Jersey standards to require that any control devices be installed on vehicles not so equipped by the manufacturer. Vehicles without such factory-installed control devices will be required to conform to standards that reflect only reasonable maintenance.

Later model vehicles with pollution control devices will be required to conform to standards that reflect proper maintenance of the engine, as well as proper functioning of pollution control equipment installed by the manufacturer.



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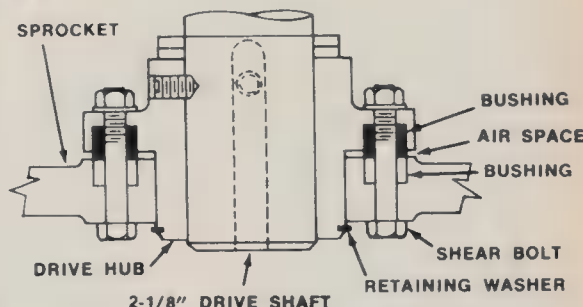
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Northeast FARM EXPERIENCE



EMPHASIZE QUALITY

Ivan and Arden Drake look alike, dress alike, and even think alike when it comes to the dairy business. In fact, if it weren't for the different caps the two traditionally wear, friends claim it would be difficult to tell them apart. Both speak in a slow drawl, their eyes twinkling when they talk about their pride in life... their dairy farm near

Drake's Mills, Pennsylvania.

And proud of their 40-cow registered Holstein herd the brothers should be. Just last year, the herd attained the highest herd average in western Pennsylvania's Crawford County, with a figure of over 16,000 pounds of milk and 623 pounds of butterfat. And one of their champion Holsteins captured the county's

butterfat production award with a total figure of 898 pounds!

Ivan and Arden, aged 43 and 46 respectively, have been dairymen "ever since we were knee high to a grasshopper," as Ivan likes to tell it. They remember farming behind a horse and a plow, and now are appreciative of the conveniences modern techniques have brought to the farm. One of these is the most recent addition to their dairy setup, a 2027 Harvestore structure to store ground ear corn for their herd.

Early Harvest

In addition to early harvesting time, the brothers are quick to see the labor-saving advantage in feeding their corn as high-moisture ground ear corn. "We used to waste the better part of a day bagging the

corn from the crib and taking it over to the mills to be ground," Arden says. "Now all we do is push a button. I sure would hate to go back to scoop-shoveling again!"

Ivan and Arden didn't jump into purchasing their sealed storage. "We talked it over quite a bit before we went ahead and bought the structure," Ivan says. "We had just about decided to go ahead with a concrete silo, and then we had an opportunity to buy a used Harvestore at a savings. That was a deal just too good to pass up!"

Quality

Arden sees too much automation on the farm as a crutch some farmers are depending upon. He feels automation allows dairymen to handle more cows than ever before, but he cautions, "If you get too many cows, you have to cut down on the amount of individual attention you give them. At our dairy, we are concentrating on quality dairy cows, not sheer numbers." The Drakes prefer tie stalls for the cows because of the personal attention they pay to each animal.

Proof of the quality of animals the Drakes are using is that of the 14 first-calf heifers in their milking herd this year, 12 of them were milking better than 50 pounds a day, with some giving 60 and 70 pounds. "We give a lot of credit to the breeding stock we have," Arden says, "but credit, too, has to go to our feeding program." The Drakes start their calves out on high-moisture ground ear corn "and they take to it real well," according to Ivan.

Both Ivan and Arden are single. "We don't have any marital problems," Arden says with a laugh. "Our only problems are with our cows!"

Arden sees the future of farming as bright, but he cautions against thinking of it as being a bed of roses. "You've got to like a lot of hard work if you're going to be a farmer," he says. "You can't work an eight-hour day. But the rewards are worth the extra effort!"



Ivan and Arden Drake have been dairymen "ever since we were knee high to a grasshopper."

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URBANIZING

Carroll Spaulding, Hollis, New Hampshire, farms in an area where land prices have been bid up rapidly by non-farmers in recent years. "We can't buy open land for \$1,000 an acre in this area," Carroll comments, "and this prices farmers out of the market for expansion."

Another facet of this inflation of land values is the tax rates facing farmers. "My taxes were \$780 annually eight years ago; in 1971 they

(Continued on next page)



hit \$2212 . . . and with no basic change in either land or buildings." The New Hampshire constitution has been amended (after a referendum) to make constitutional the taxation of land on the basis of present use, but implementing legislation has not yet been passed.

Carroll has a 40-cow herd in a conventional barn. He feeds them equal volumes of haylage and corn silage, plus 5-6 bales of hay (40 pounds per bale) daily . . . and grains them once a day, based on production. Herd average is just above 15,000 pounds of milk per cow annually.

Good quality roughage is the basic feed; the milk-grain ratio is 8 to 1. Carroll had all his first cutting in the 20x50 Harvestore silo by June 8 in 1971.

"The Harvestore is never empty," Carroll comments. Two 14x32 wood silos are used to store corn silage.

Although purchase prices for land are high (and rising) in the Hollis area, rental rates for land are fairly reasonable. Carroll, in common with many New England farmers, rents land to supplement what he owns. To accommodate non-farm land-owners, he makes such concessions as growing alfalfa in fields near their homes . . . tall-growing corn would block their view.

Here's proof that a dairyman can operate a successful business even in an area that is urbanizing. — G.L.C.

MAPLE MAKERS

Maple Leaf Farm is operated by William Brewer and his family near Canton (St. Lawrence County), New York. There are 30 milk cows on this 325-acre place; another major enterprise is making maple products.

In years past, the Brewers have made around 650 gallons of syrup a year, but want to enlarge that figure. They had 3,500 taps in 1972, bought some sap besides. "There are an awful lot of maple trees in our area that **could** be tapped," Bill comments.

Boiling is done in a new 30x60-foot building that includes a 15x30 salesroom. It's a popular place for visitors, including school classes from the area.

The covered evaporator (4x14 feet) is fired by #2 fuel oil; syrup is finished off in a gas-fired finishing pan. Sap is stored in an unrefriger-



Bill Brewer adjusts his power tapping machine.

American Agriculturist, May, 1972

ated 5,000-gallon tank that was once a storage container at a milk plant.

Syrup is sold retail at the farm, made into maple cream and maple candies there, and shipped to connoisseurs of the sylvan nectar all over the country. Some is also sold through a couple of local stores, and wholesalers buy the lower-grade syrup made near the end of the season.

"Don't forget to give my wife, Iona, and our four boys . . . six to 12 years old . . . lots of credit for getting the work done around here," Bill comments.

In no other work than farming is there so much opportunity for a whole family to be together, I muse as I make a note of that remark!—G.L.C.

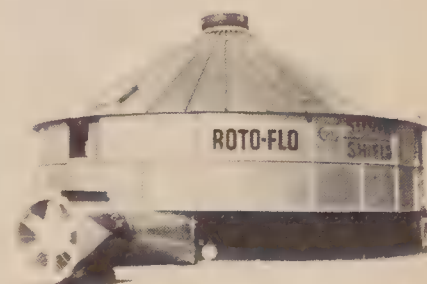
With Our ADVERTISERS

Aspirin for horses and cattle is for the temporary relief of minor pains associated with muscular strain, slight joint sprain or skeletal inflammation, and for the reduction of fever. Dr. Naylor animal aspirin bolus, each containing 240 grains of aspirin, is packaged in units of 10.

In a move designed to aid the average size grain producer, Clayton & Lambert has begun marketing a 13-foot model of their highly successful Roto-Flo mechanized grain dryer.

Previously, Roto-Flo's were

made in 17 to 36-foot sizes, with drying capacities of up to 2,400 bushels an hour, which primarily benefited large operators. With the new 13-foot model . . . and its equally scaled-down installation cost . . . it is now feasible for farms of medium crop production. Additional information is available from: Dept. AA, Clayton & Lambert Manufacturing Co., Buckner, Kentucky 40010.



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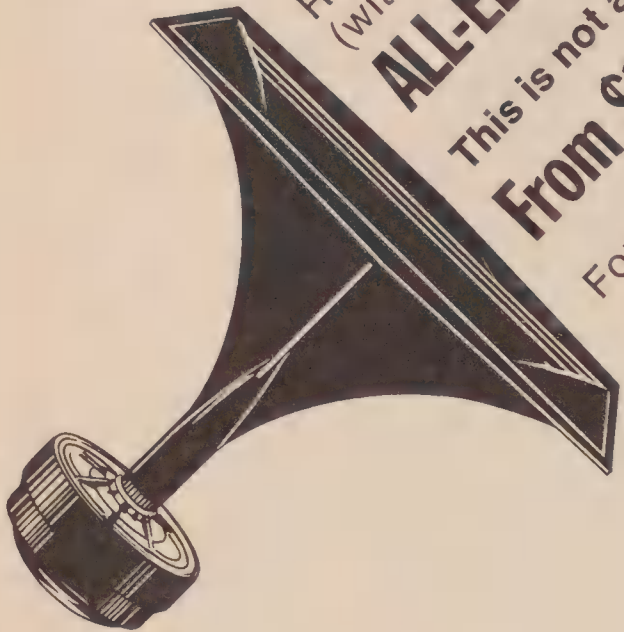
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8, 9, 10,
'72**

mothballing a snowmobile

THE following are suggestions for putting your snowmobile away for the summer, prepared by the service engineers at Massey-Ferguson, a snowmobile manufacturer.

First, check your owner's manual for specific recommendations. Clean all dirt, grease and oil from your machine. Use a bucket of warm water to wash down the snowmobile. A mild detergent will help cut the grease. After the machine dries, sand down any rough scratches and touch them up with paint.

Next, raise and securely block the rear of the machine off the ground. Run the engine at slow speed to see if the drive track is properly aligned. This should be done either outside, or in a well-ventilated area. If the track is not aligned correctly, adjust the position of the bogey wheels on the rear idler shaft according to the manufacturer's recommendations.

Make sure all bogey and idler wheels are free-turning, clean and properly lubricated. Bent bogey wheels and idler shafts will cause uneven wear and horsepower loss next season.

Now, securely block up the front of the machine to take the weight

off the skis. Drain the fuel system; fuel left in the system during the off-season will evaporate, leaving a gel in the carburetor. Disconnect the fuel lines and run the engine until it stops. Then remove any remaining fuel from the tank with a siphon hose. Leave the gas cap unscrewed, but on the tank to protect it from foreign matter.

Remove all oil and grease from the engine and tighten cylinder head bolts if necessary. Remove spark plugs, place a few drops of motor oil in the cylinders and manually turn the engine one or two revolutions. Then replace the spark plugs.

Wipe off the battery to remove grease and any acid that may have collected. Fill the cells and check the battery a few times during the summer to be sure it's fully charged. Disconnect the leads from each battery terminal so there is no chance of a slow electrical drain.

Next, inspect the drive system for worn or defective parts. Check sprocket fasteners for tightness and the sprockets and the drive chain for wear. Inspect seals for leaks and replace worn parts. Then, loosen the tension on the drive track and drive chain.

Use warm water to clean the drive track. Never use gas or oil on the rubber. Check for missing cleats and inserts and apply motor oil to the tops and bottoms of the skis.

Finally, tighten all loose nuts and bolts, and lubricate according to your operator's manual. Place a protective cover over your machine and store it in a sheltered area.

pump spreading

Jerry B. Shaffer, farm specialist for the Pennsylvania Light & Power Company in Lancaster, reports on a unique push-button method of manure handling at the John Groff farm near Mt. Joy, Pennsylvania.

Basic components of the operation are a farm pond, a 65,000-gallon holding pit, a 21,500-gallon pumping pit, and a 30-hp, 3-phase pumping and distribution system.

When Groff is ready to clean the gutters in his 160-foot barn, water is allowed to flow from the farm pond into the pumping pit. The water is pumped through a pipe (which serves as an integral part of the stanchions) to the upper end of the barn and into the gutter, where it causes the manure to float. A gate valve is then opened, the manure flushes into the holding pit, and is held in liquid form until Groff spreads it on the fields.

When Groff is ready to spread

the manure, he places a big gun sprinkler in the area where the manure is to be spread, and connects it to the supply line from the pumping pit. To be sure the system is working properly, water is first pumped through the irrigation pipe and sprinkler. Manure from the holding pit is then allowed to flow into the pumping pit and is pumped to the fields.

The pump delivers 200 gallons per minute at 100 pounds per square inch, and can empty a full holding pit in about six hours. Sawdust is used exclusively for bedding, and about 30 yards per year (one trailer-truck load) is all that is needed.

In more than a year of operation, operating cost has been approximately \$15 per month for electric power. Groff is happy with the system, and has had favorable comments from local health sanitation personnel.



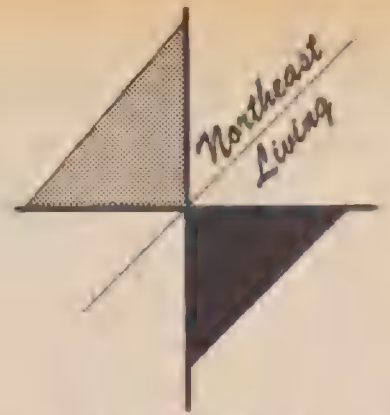
POULTRY
Egg Promotion — The egg industry is moving to woo the U.S. consumer by planning the first nationwide advertising and promotion campaign on behalf of eggs. The Egg Promo-

tion Information Committee (EPIC), made up of executives of several leading companies that produce eggs or supply egg producers with vital products, has already approved a campaign theme, picked the advertising agency (Rumrill-Hoyt, Inc., New York City), and started raising funds from industry members to support a television, radio and print campaign. Aim is to stem trends in the American life style that have been cutting into egg sales.

American Agriculturist, May, 1972

'round the kitchen

with Alberta Shackelton



STRAWBERRIES, fresh coconut, airy-light sponge-type or melt-in-the-mouth butter cakes and fluffy frostings — what a collection to make memorable eating for this "merry month of May!" Have fun with the recipes given below. Any one of them can be an excuse for a celebration — Mother's Day, birthdays, showers and the like. Be sure to notice the new baking helps under Kitchen Bookshelf.

STRAWBERRY CREAM ROLL

- 4 eggs
- 1 teaspoon vanilla
- 1 cup sugar
- 1 cup sifted cake flour
- $\frac{3}{4}$ teaspoon baking powder
- $\frac{1}{4}$ teaspoon salt
- 1 cup heavy cream, whipped and sweetened
- 1 pint fresh strawberries, sliced and sweetened lightly if necessary

Beat eggs and vanilla at high speed of mixer or with a rotary egg beater until thick and lemon-colored. Gradually beat in the sugar until mixture is fluffy and thick. Sift together the flour, baking powder and salt and add at once, folding them in gently by hand.

Pour into a 15×10×1 jelly-roll pan that has been lined with foil, lightly greased. Bake in a moderate oven (350°) for 12 to 15 minutes, or until cake is a very light brown and top springs back when lightly touched. Do not overbake.

Loosen edges and turn out onto a large sheet of foil which has been generously sprinkled with granulated sugar. Peel off foil lining and trim off crisp edges. Roll up in sugar-sprinkled foil sheet, leaving ends open, and let stand just 15 to 20 minutes. Unroll and spread with whipped cream and sliced strawberries. Reroll and chill about 1 hour in refrigerator before serving. Cover with foil during chilling.

FILLING VARIATIONS

Clear Lemon Filling: Mix $\frac{3}{4}$ cup sugar, 3 tablespoons cornstarch and $\frac{1}{4}$ teaspoon salt and gradually stir in $\frac{3}{4}$ cup water. Bring mixture to rolling boil; boil 1 minute, stirring constantly. Remove from heat, add 2 tablespoons grated lemon rind and gradually stir in $\frac{1}{4}$ cup lemon juice. Cool thoroughly before using.

Chocolate Butter Cream Filling: Whip $\frac{1}{4}$ pound sweet butter (have butter at room temperature) with $\frac{1}{4}$ teaspoon salt in electric mixer or rotary beater until light. Add 1 cup confectioners' sugar, a little at a time, whipping continuously. Add 2 squares melted and cooled unsweetened chocolate and continue beating. Add 1 cup confectioners' sugar, 3 to 4 tablespoons cream and 1 teaspoon vanilla extract, to make a light, fluffy, spreadable filling.

FRESH COCONUT LAYER CAKE

- 1 medium sized coconut
- $\frac{2}{4}$ cups cake flour
- $1\frac{1}{2}$ cups sugar
- $3\frac{1}{2}$ teaspoons baking powder

- 1 teaspoon salt
- $\frac{1}{2}$ cup soft shortening
- $\frac{1}{2}$ cup milk
- 1 teaspoon vanilla extract
- $\frac{1}{2}$ teaspoon almond extract
- 5 egg whites, unbeaten
- $\frac{1}{2}$ cup milk

Prepare coconut by piercing 3 holes in one end and draining out milk. Place in a moderate oven (350°) for 20 to 30 minutes to partially crack shell. Cool; break shell with a hammer and pry out white meat in



Photo: Reynolds Metals Company

Many cooks are afraid to tackle any kind of rolled cake. Follow our easy directions, as pictured here, and you'll find it's easy to do.

as large pieces as possible. Pare off brown skin; grate coconut meat.

Stir cake flour before measuring and then spoon lightly into cup and level off. Sift flour, sugar, baking powder and salt into large bowl of electric mixer. Add shortening and $\frac{1}{2}$ cup milk. Beat on low speed until well blended and then on medium speed for 2 minutes. Add egg whites and $\frac{1}{2}$ cup milk and beat at medium speed for 2 minutes, scraping bowl frequently.

Pour into 2 paper-lined 9-inch layer cake pans and bake in moderate oven (350°) 25 to 30 minutes, or until cake tests done. Cool in pan 10 to 15 minutes. Remove from pans and remove paper. Cool; fill and frost with Fluffy White Frosting (sprinkle coconut on frosting between layers). Form frosting in peaks on top of cake. Sprinkle generously with coconut and if desired, lightly press pink and yellow Jordan almonds around edge of cake, or make a design in the center.

Note: Any leftover coconut may be kept tightly covered in the refrigerator or frozen for a short period of time. Also, you may substitute the packaged angel-flake coconut for the fresh by chopping it to be less flaky and more the texture of freshly grated coconut.

FLUFFY WHITE FROSTING

- 2 egg whites
- $1\frac{1}{2}$ cups sugar
- $\frac{1}{2}$ cup light corn sirup
- 6 tablespoons water
- $\frac{1}{2}$ teaspoon salt
- $\frac{1}{4}$ teaspoon cream tartar
- 1 teaspoon almond flavoring

Mix well in top of double boiler all ingredients except flavoring. Place over rapidly boiling water and beat constantly with rotary beater until

mixture into meringue, $\frac{1}{4}$ at a time, and fold in gently just until flour mixture disappears.

In a smaller bowl beat egg yolks, orange rind and juice and 2 tablespoons sugar until very thick, light and lemon-colored. Add $\frac{1}{2}$ of the meringue batter to the yolk mixture and fold in gently. Spoon batters alternately into an ungreased tube pan, 10×4 inches, to give a marbled effect. Put white batter across the top.

Bake on bottom shelf of moderate oven (375°) 35 to 40 minutes, or until cake tests done (cake tester inserted in center comes out clean and top springs back when lightly touched with finger). Invert pan on funnel or neck of bottle and allow to hang until completely cool.

The Kitchen Bookshelf

Betty Crocker's **Basic Baking** is something new in cookbooks — 122 pages with photos to guide you step by step for nine basic bakings, plus many special baking tips. Look for this book at department store book counters or in regular bookstores. Approximate price, \$3.00.

Breads, Cakes and Pies in Family Meals — A Guide for Consumers is the newest U.S.D.A. Home and Garden Bulletin (No. 186). Information in this bulletin can add to your baking know-how, whether you are an experienced cook or a beginner. Contains plenty of recipes. 20 cents.

Freezing, canning and pickling time draws near. Do you have these latest bulletins on your kitchen bookshelf?

Home Freezing of Fruits and Vegetables, H.G. Bulletin No. 10, 1969. 20 cents.

Home Canning of Fruits and Vegetables, H.G. Bulletin No. 8, 1971. 20 cents.

Home Canning of Meat and Poultry, H.G. Bulletin No. 106, 1970. 15 cents.

Making Pickles and Relishes at Home, H.G. Bulletin No. 92, 1968. 15 cents.

Send your request for any of these bulletins with your name, address and correct amount of money to **Superintendent of Documents, Government Printing Office, Washington, D. C. 20402.**

Handbook for Freezing Foods, Cornell Extension Bulletin 1179, 1971. 50 cents. Send request with name, address and money to **Mailing Room, Building 7, Cornell Research Park, Ithaca, New York 14850.**



Clear nail polish will plug up small holes in window screens. Dab on enough to create a film of the polish across the opening.

4928. A young pantsuit and dress. PRINTED PATTERN, New Women's Sizes 36-50. Size 36 (bust 40) pantsuit 4 1/8 yds. 45 in. 50 cents

4776. One part for wrap pantskirt. PRINTED PATTERN, New Misses' Sizes S (10-12); M (14-16); L (18-20). Medium, 3 3/8 yds. 45 in. 50 cents

4517. Step into this shapely skim. PRINTED PATTERN, New Half Sizes 10 1/2-18 1/2. Size 14 1/2 (bust 37) takes 2 3/4 yds. 45 in. 50 cents

701. Crochet INSTANT coat or long vest. Use No. 9 hook. Sizes 10-12; 14-16; 18-20; 40-42 included. Easy to follow directions. 50 cents

All Printed Patterns

4928
36-50

4776
S-10-12
M-14-16
L-18-20



ONE
PATTERN
PART

701

4517
10 1/2-18 1/2



9446 10 1/2-20 1/2

4631 8-18

4631. Zip up this quickie dress. PRINTED PATTERN. New Misses' Sizes 8-18. Size 12 (bust 34) takes 1 5/8 yds. 60 in. fabric. 50 cents

9446. Look lean and lively in this skimmer. PRINTED PATTERN, New Half Sizes 10 1/2-20 1/2. Size 14 1/2 (bust 37) 2 3/8 yds. 45 in. ... 50 cents

755. Quick knit look-alike capes. Use bulky yarn and big needles. Directions, child's 2-12 and teens, misses' 8-16 included. 50 cents

4803. Ten way to make our princess dress. PRINTED PATTERN, New Misses' Sizes 8-18; Half Sizes 10 1/2-18 1/2. Yardages in pattern. 50 cents

4803 8-18
10 1/2-18 1/2

755

- | | |
|-----------------------------|------------------------------|
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| Fashions to Sew (Spring) | <input type="checkbox"/> 50¢ |
| Designer Collection #27 | <input type="checkbox"/> 50¢ |
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| Book of 16 Quilts #1 | <input type="checkbox"/> 50¢ |
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| Complete Instant Gift Book | <input type="checkbox"/> \$1 |
| Instant Crochet Book | <input type="checkbox"/> \$1 |
| Instant Macramé Book | <input type="checkbox"/> \$1 |
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by George and Katy Abraham

Salvia — A Flashy Plant

While petunias are still the No. 1 annual, salvia is getting a lot of attention these days. You get a greater variety of colors with petunias, but we now have red salvia, pinkish ones, white types, and a semi-hardy perennial called blue salvia. The blue salvia blooms the first year and has long graceful, gray-blue spikes, ideal for fresh or dried arrangements.

If you want salvias to start blooming earlier, stay away from the tall varieties, such as **Bonfire**. The taller varieties bloom later. Dwarf types such as **St. John's Fire** (1 foot high) start a show in early August. **Red Pillar** is another early dwarf, hard to beat. A new variety called **Hot Pants** is an early bloomer and grows about 16 inches high.

Salvia seed needs plenty of heat for germination (75 to 80 degrees). Set plants outdoors when danger of frost is over. Mass them together for a real show. Oddly enough, salvia will take semi-shade, and in beds or borders, they will do best if the dead flowers are snipped off. Blooms will continue until frost.

Make Room for Corn

Most of us grow only the yellowkerneled corns, but did you ever try the two-tone or bi-colored types? These corns have white and gold kernels and are extra sweet. Also, some gardeners are taking a shine to white corn. When I was a boy, this was more popular in the South, but Northerners referred to it as "horse corn." **Silver Queen** is a good white corn, maturing late (94 days).

If your children would like to make a few extra dollars, let them grow ornamental or Indian corn, ideal for home decorations and roadside sales. These corns mature late in the season and have mixed kernels of red, yellow, white, blue and purple. Then there's a "strawberry" corn with tiny ears 2 inches long and a little thicker than your thumb.

Note: To insure pollination, don't forget to plant corn in blocks of at least three rows side by side, instead of in a single long row.

Some gardeners plant seed in "hills," rather than in a row — 5 or 6 seeds per "hill" and 2 or 3 feet apart. Early varieties should be thinned to 1 foot apart and later varieties, 1 1/2 feet apart. The term "hill" is sometimes confusing, since it does not mean a mound of soil, but planting several seeds together.

You can safely plant Indian corn and popcorn with the edible types if they do not bloom at the same time. But if a late corn is planted next to the ornamental corn, you're bound to have some sweet corn with colored kernels.

Fairy Rings Again

So you have a dark green ring in your lawn each year, with the ring

getting larger and larger? This is the mysterious "fairy ring" common in many lawns. For centuries folks believed these fairy rings were due to nighttime dancing of elves, leprechauns and fairies, hence the name "fairy ring." The rings reappear in the same spot year after year, and each summer the diameter will be larger than it was the year before.

What causes fairy rings? They are due to fleshy fungi or mushrooms feeding on organic matter in the soil. Some are white to light beige and large enough to be spotted from a passing car; some last for several weeks. Others are small and brown, so short-lived as to go unnoticed.

The rings are nice and green due to the action of micro-organisms. They secrete enzymes which release nitrogen from organic compounds. This is like giving the grass an extra shot of nitrogen fertilizer. Shortly after the mushrooms fade and die, the grass in the ring has gone from feast to famine, from lush green to sparse yellow.

No one knows why the fungus grows in an ever-enlarging ring. What to do? Most home owners are content to live with this phenomenon. Gather the mushrooms and discard them. No chemical spray will work. One AA reader tells us she mixed up a bucket of Epsom salts (one handful to a gallon of water) and drenched the rings. She claimed it killed the fungi.

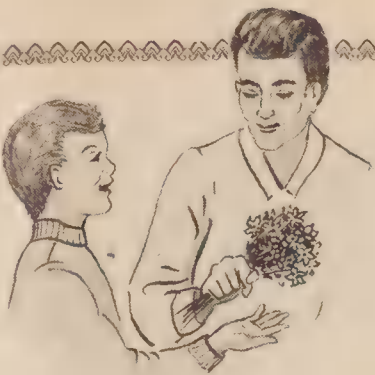
AA Garden Clinic

A reader writes, "Last year our tomatoes were fine early in the season, but in early September they all wilted, even though we sprayed. What was wrong?"

Answer — Could have been due to either verticillium or fusarium disease. These build up in home garden soils and persist for years. Spraying is ineffective. Try growing a disease-resistant type, such as **Heinz 1350**, which is resistant to both fusarium and verticillium wilt.



"Hangover" cure for unsightly windows is offered by the compact new "Viewsaver" air conditioner from **Sears, Roebuck and Co.** The 6000 BTU cooling capacity is designed into the most compact package ever — only 10 inches high and less than 15 inches deep. The result means less exterior hang-over to mar a building's face and more view from the window. Free window movement is another feature of the new Viewsaver, to be marketed this spring.



Mother's Day

There's one special thing you want to remember about your mother, son, and this is it: As long as you live, you will never find another living soul who is so completely on your side. She knows every little thing about you but remembers only the best. You can disappoint her, shame her, finally break her heart but she will keep right on believing in you. You can fail at everything you ever try and she will only say that next time things will be better.

Just because she does believe in you so deeply, you will always stand a little taller and try a little harder. Even after she's gone, her faith will remain to walk beside you every step of the way.

Country Cooking!

by Dixie L. Thompson

The second day in our newly acquired farmhouse found us having rather simple and sketchy meals, as we had not had time to stock our pantry shelves or freezer. We were somewhat appalled when a farm machinery salesman descended upon us, apparently prepared to spend the day.

Naturally we wanted to be as hospitable as all country folk are supposed to be, even though we were not accustomed to having strangers drop in for meals. So we invited him for dinner, our mid-day meal in the country.

The afternoon wore on, and he stayed for supper too. Although we had plenty of food, it was hardly the type we would ordinarily serve guests.

After he left, my husband seemed highly amused by something. When I could persuade him to explain, he said, "This morning that salesman

told me how much he was looking forward to eating in a real farmhouse again. He's a city dweller now but was raised in the country. He told me 'those city people don't know how to eat. All they ever eat are hamburgers and hot dogs'."

We had given the poor man hamburgers for dinner and hot dogs for supper!

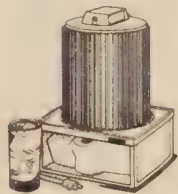
DO YOU HAVE . . .

Any idea where Mrs. John Martisofski, R. D., Sugarloaf, Pa. 18249, can exchange the trading stamps she does not want for the kind she saves?

A 1945 Fall and Christmas Edition of "Ideals"? If so, please contact Mrs. M. D. Lamb, East Calais, Vermont 05650.

A copy of "England Beautiful," "New York Beautiful," or any of the New England States Beautiful books by Wallace Nutting? Miss Mary Capron, North Cohocton, N. Y. 14868, is looking for them.

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FOR YEAST COFFEE CAKES

PRIZES TO
TOP TEN WINNERS



From Standard Brands, Inc.:
Gift box of Standard Brands
products

by Augusta Chapman, Home Editor

It seems to me that one of the most interesting AMERICAN AGRICULTURIST-New York State Grange baking contests I remember was the 1964 Yeast Coffee Cake Contest. Since each participant could make any kind of yeast coffee cake desired, there were round ones, oblong ones, twists and braids, filled cakes and plain cakes. This gave a variety to the entries which is usually impossible, and it was fun to see the many different types entered in the state competition.

I am really looking forward to the finals in this year's contest, which will be held when State Grange meets at Syracuse in October. The 53 Pomona winners will vie for top honors and the valuable prizes pictured and described in this article. Our sincere thanks and appreciation go to every company participating in the contest and helping to make it a success.

Here are the prizes!

GRAND PRIZES

The top winners will receive one of the following grand prizes:

From Agway, Inc.: A cash award of \$200.

From GAF Corporation: An Anscomatic 236 XF Electric Eye Model Camera, which takes flash pictures without batteries.

From International Multifood: An Osterizer 10-speed Cyclomatic Blender.

From International Salt Company: A Regal 30-cup automatic Poly Urn in avocado color.

From Monarch Range Company (Beaver Dam, Wisconsin): Their exclusive patented "Jet-Fan" convection oven Electric Range that reduces baking and roasting time up to one-third. Also featured is Monarch's fantastic new "Sta-Klean" oven which cleans itself continuously while the user bakes and roasts at regular temperatures, plus lift-off

oven door and lift-up cooking top.

From National Grange Mutual Insurance Co.: A 4-piece Coffee Service; includes 15-inch round tray of Community Silverplate in "Park Lane" pattern.

From New York State Grange: Two grand prizes — a Singer Portable Zig-Zag Sewing Machine and a Singer Powermaster Upright Cleaner with pile selector which adjusts for the new shag carpets.

From Oneida Ltd. Silversmiths: A 48-piece set (service for 8) of Community Silverplate in "Silver Valentine" pattern, plus deluxe chest.

PRIZES TO THE TOP TEN WINNERS

Each of the 10 highest state winners will receive the following prizes:

From Curtice-Burns Foods: A case of Blue Boy vegetables in white-plate lined cans.

From Dairylea Cooperative Inc.: A Cheddar Treasure Chest Dairylea Cheese Assortment.

From International Salt Company: 4 packages of Sterling Table Salt.

From P. J. Ritter Division of Curtice-Burns, Inc.: A "Cumberland" Gift Box of assorted Ritter products.

From Standard Brands, Inc.: A Gift Package containing many Standard Brands products.

OTHER AWARDS

Other contest prizes, including cash awards, are as follows:

From International Multifoods: A coupon for a 5-lb. bag of Robin Hood flour to each of the 53 county winners.

From Standard Brands, Inc.: \$50.00 in cash, to be awarded as follows: 1st place winner, \$25; 2nd place winner, \$15; 3rd place winner, \$10.

New York State Grange will again award \$159 in entry prizes. Each of

GRAND PRIZES

From Monarch Range
Company: "Jet-Fan"
Electric Range with new
"Sta-Klean" Oven



From International Multifoods:
Osterizer 10-speed Cyclo-
matic Blender



From International Salt Co.:
Regal 30-cup Poly Urn

the 53 county winners taking part in the state contest will receive a \$3 cash prize.

AMERICAN AGRICULTURIST will distribute \$107 among the 25 top winners as follows: First prize, \$20; second, \$15; third, \$11; fourth, \$8; fifth, \$6; sixth, \$5; 7th through 10th, \$3 each, and \$2 each to winners 11 through 25.

Watch For The Winners

In our October issue, we will print a list of the 53 Pomona winners who will compete for these fine prizes in the state finals. And in December, we will feature a story of the state contest, with pictures of all winners present at State Grange when their names were announced.

American Agriculturist, May, 1972



From P. J. Ritter Co.: Gift box of assorted Ritter products

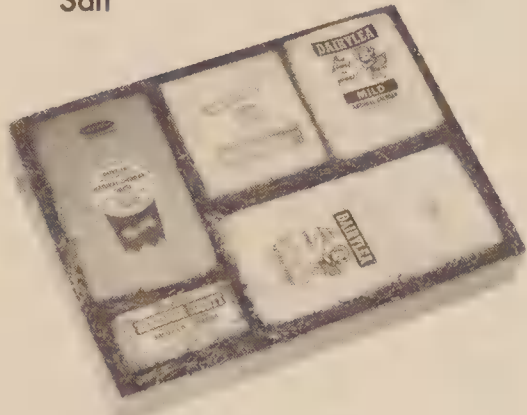
White-plate lined cans



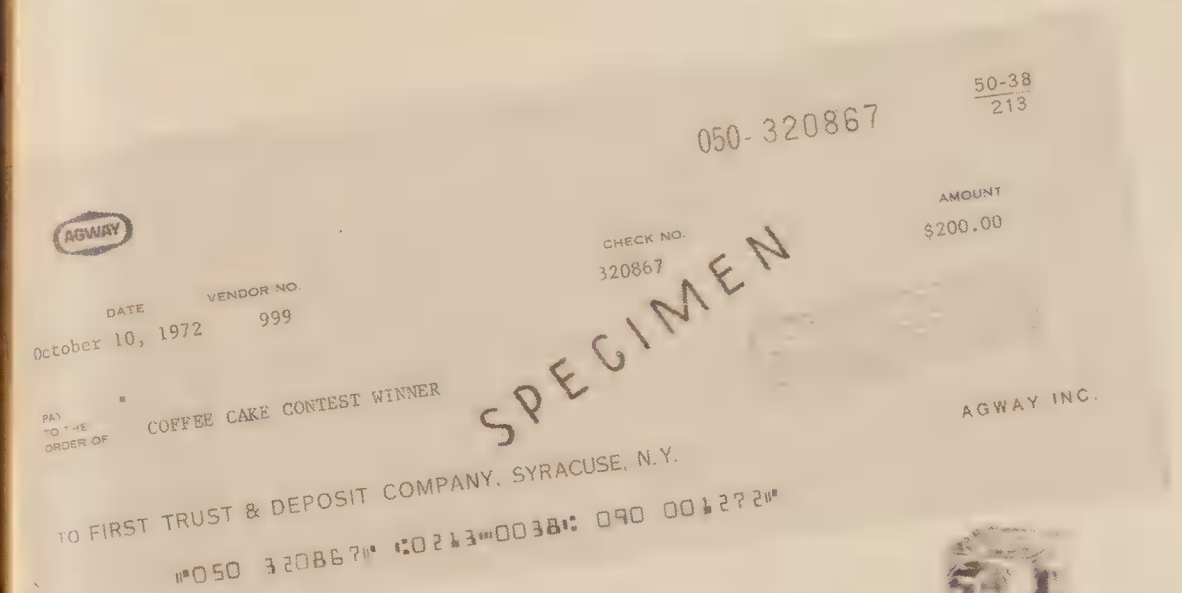
From Curtice-Burns Foods: Case of Blue Boy vegetables



From International Salt Co.: 4 packages of Sterling Table Salt



From Dairy Lea Cooperative Inc.: Treasure Chest Dairy Lea Cheese Assortment



From Agway, Inc.: \$200 in cash



From GAF Corporation: An-scomatic 236 XF Electric Eye Camera



From New York State Grange: Singer Powermaster Cleaner



From New York State Grange: Singer Portable Sewing Machine



From Oneida Ltd. Silversmiths: 48-piece set Community Silverplate with chest

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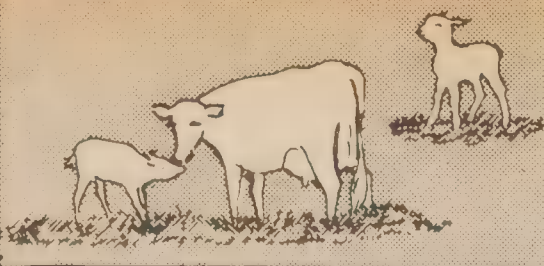
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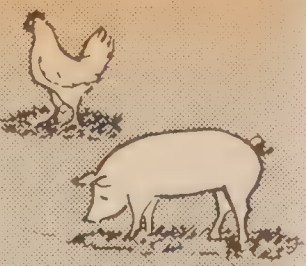
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BABCOCK B 300 LEGHORNS White - Barred Rocks. New Hampshires, Cornish Rocks, Ducklings. Free catalog. Mt. Healthy Hatcheries, Inc., Mt. Healthy, Ohio 45231.

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SILVER HALLCROSS CHICKS. Sex-Links, Golden Buffs, Rhode Island Reds, Barred Rocks, White Leghorns. For meat: Heavy White Cross, White Cornish Cross. Write for price list. Hall Brothers Hatchery, Inc., Cook Hill Road, Wallingford, Conn. 06492.

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CHAROLAIS PUREBRED COWS, bulls and heifers for sale. Performance records show high weaning weights and grades. Robert B. Hazard, Hidden Falls Farm, Tully, N.Y. 13159. Phone 315/696-5353.

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CHAROLAIS

CIRCLE B FARM purebred Charolais - May monthly roundup. Are you breeding for profit this coming year? Then when you go by-buy, please stop here. If you haven't time, then call or write. The quality is good and the price is right. Phone 716/928-1118 - Little Genesee, N.Y. 14754.

SUNNYSIDE CHAROLAIS FARM, Rt. 17, Barton, N.Y. 13734. For sale - purebred bulls, excellent bloodlines, outstanding PRI weights, halter broken. Seeing is believing. 607/565-4457.

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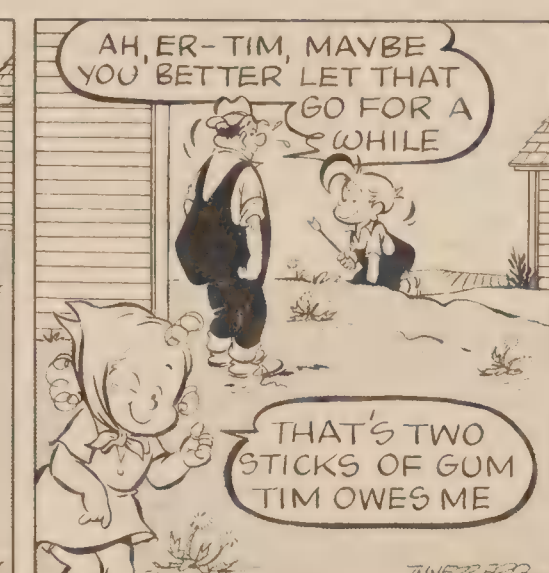
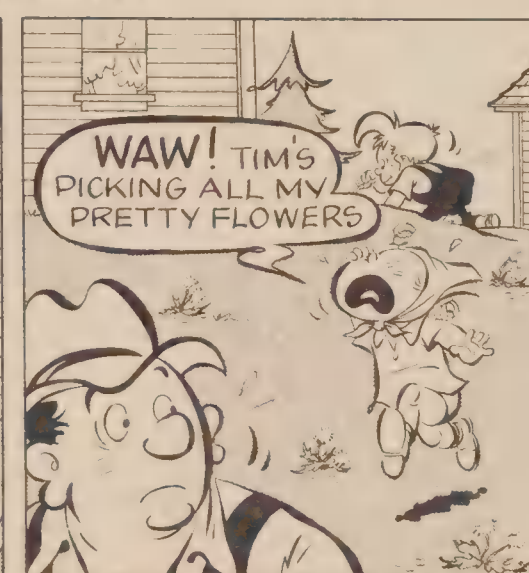
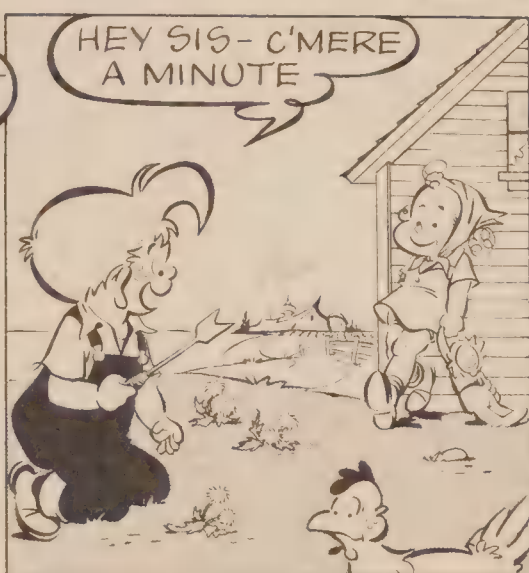
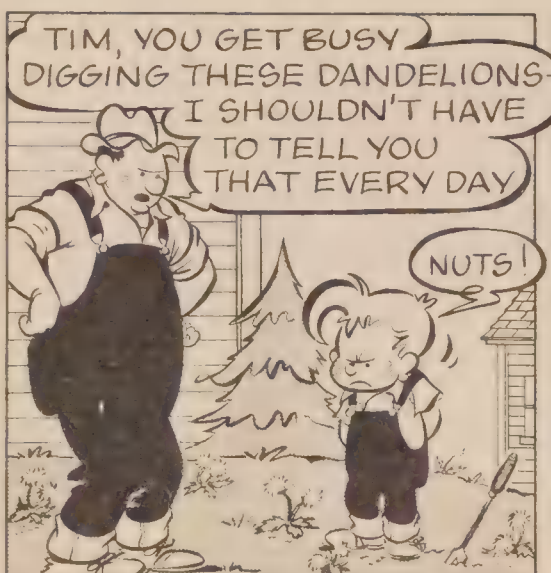
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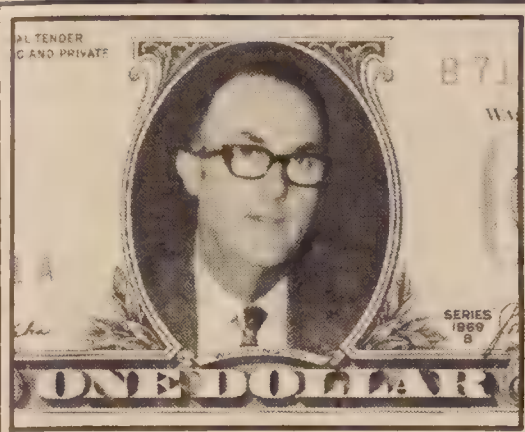
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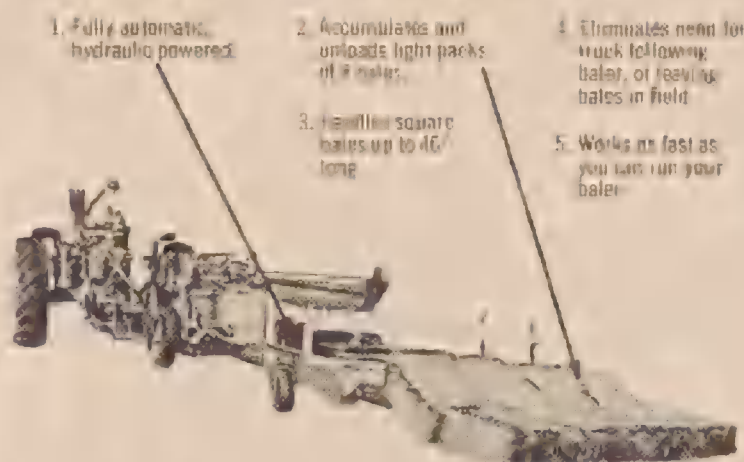
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HOUSEKEEPER, WOULD WORK for Christian couple or refined gentleman in rural New York State. No smoking, drinking. Box 369-AV, Ithaca, N.Y. 14850.

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WANTED — GOLD, SILVER, Platinum (any form), Coins. Information Free. Wilmet's, 1067 Bridge, Grand Rapids, Mich. 49504.

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WALLPAPER — SAVE HALF. Huge 1971-72 catalog — 84 selections, wallpaper 32¢ to 95¢ single roll; \$5.39 Vinyls only \$2.75. Send 10¢. Mutual Wallpaper, Dept. 32B, 228 West Market, Louisville, Ky. 40202.

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MOVING?

LET US KNOW

**American
Agriculturist**

American Agriculturist, May, 1972

Dollar Guide



FIRST AGRICULTURAL DISTRICT has been officially designated in New York's Schoharie County. Involving just over 5,000 acres, the district offers incentives to retain viable agriculture within its boundaries.

CHLORDANE is again available to homeowners in New York State ... after a period of being on the "B" list of those pesticides available by permit only.

REGISTRATION WITH USDA by April 1 is required of all persons who pack eggs for consumer outlets, including producer-packers who have 3,000 or more birds.

DAIRYMEN, and especially the leaders of their dairy cooperatives, are miffed at decision by Secretary of Agriculture to keep dairy price support levels same as year before. They're now looking to Congress for legislation to raise support price to 85 percent of parity, which would require going from \$4.93/cwt. to \$5.28.

SPICE (State Poultry Industry Coordinated Effort) is promoting state marketing order in New York ... calling for mandatory checkoff of 5 cents per 30-dozen case of eggs from producers with 10,000 or more layers. Funds would be used to promote NYS eggs and poultry products, and finance market and product research.

Producer referendum likely toward end of June.

TIME BOMB ticking away in U.S. milk marketing involves sharp reduction in number of children considered desirable by typical young family. Per capita consumption of milk is traditionally high at early ages.

FRUIT-TREE SPRAYS at night often provide better coverage (and less wind drift) than would daytime sprays. One Western New York fruit grower pays his men \$1 per hour extra for night spraying in order to encourage the practice.

MERGER of New England milk cooperatives into new cooperative to be called Yankee Milk, Inc. is predicted to occur about July 1, 1972. Dairylea is reported to be planning to affiliate with Yankee.

HUNTERS will have free access to private farmlands under new programs in 10 states, including Pennsylvania. Farmers already participating in USDA set-aside programs will get extra compensation for permitting access to their land.

COLOSTRUM is liquid gold to dairymen. New calves should get it within 15 minutes of birth ... colostrum is loaded with disease-fighting capacity.

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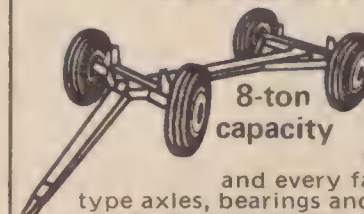
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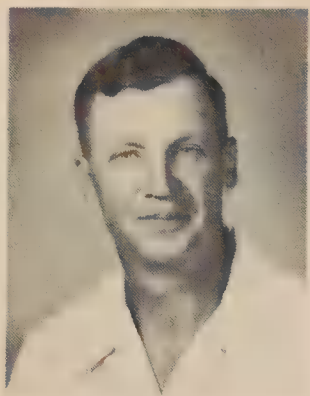
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Gayway Farm Notes

by HAROLD HAWLEY

THE CHANGING SCENE

A whole series of modifications in cropping practices, livestock numbers and environmental rules has led to the demand for a by-product to the point where it is being deliberately produced. Let's take it from the top.

Not so long ago, under the stimulus of high government support prices, a lot of winter wheat was grown in this neck of the woods. At the same time, most farms were still growing oats — either for themselves, or as a companion-crop for alfalfa seedings. The horse boom, and especially the influx of hundreds of racehorses, had barely begun. Result — straw was plentiful and cheap.

Step two — wheat acreage declined. Clear-seeding of alfalfa came into vogue, and oat acreage dropped. The horse thing became a reality. Straw became scarce and high-priced. A few growers raised rye just for its tonnage of high-class race-track bedding.

Search Begun

Dairymen began to look for other sources of bedding. Some tried rubber mats — which were fine, but somewhat expensive.

Many turned to their local sawmills for sawdust. This was fine at first, except that most sawyers regarded the sawdust as a nuisance and did little or nothing to promote its sale.

Farmers would arrive for a load — only to find it wet, covered with snow, and/or in a place not easily accessible. Loading facilities other than a scoop shovel were frequently not available.

It was cheap, however, at least early in the game. Gradually, as the supply of sawdust failed to meet the needs, the price went up. The more enterprising sawyers put roofs over their sawdust piles to cut down the waste due to weather. Some loaded the stuff on the farmers' trucks. Commercial truckers began to go farther and farther for loads to meet their needs.

Next Round

Who's to say which came first and brought about the next round of change? The age-old custom was to saw up the best of the slab wood to the extent it could be sold. The rest of the slabs and edgings were piled out back and burned from time to time — but fires became a no-no.

Sawdust machines to convert slab wood into sawdust had been around for awhile, but few neighborhood mills had any reason to be interested in such high-priced, high-horsepower equipment until sawdust became valuable, and slabs became an albatross.

It's perhaps not too unrealistic

to visualize tomorrow's sawmill with a covered, sided sawdust storage with a paved floor into which the sawdust can be blown, and from which it can be quickly loaded. Would you believe hauling slabs from several small mills to one which has a sawdust machine available for a price?

HOLD IT, FELLA

Increasingly, we hear folks say that we should all be forbidden to spread manure in winter. I don't know who started this, but some folks who should know better seem to be starting with that as the premise — and then deciding how we will be storing and handling the stuff.

I think it's about time we challenged the original premise, which is that we must not spread manure in winter because of the potential for increased runoff and water pollution. Spreading foolishly on steep, bare slopes will undoubtedly lead to runoff no matter the time of year. It's a little tough to imagine a problem, though, if spreading is done on more level ground with some ground cover. The steeper slopes **could** be covered with manure directly ahead of plowing.

Maybe to get the thing properly viewed we should remember that big rains, prolonged thaws, and other natural phenomena were causing some soil to move long before man arrived on the scene. Even streams from virgin forests carry a share of organic matter and soil particles. This is also naturally true of runoff water from agricultural land.

Somewhere along the line, we will need a set of standards as to what constitutes acceptable amounts of runoff of soil, organic matter, and nutrients. Zero tolerances (as called for in federal legislation by 1985) obviously make no sense.

Imagine the frustrated public official sent out to enforce such a law. After shutting down all the farms because there were impurities in the waters flowing from them, he would find these same streams **still** carried impurities. Now whom does he shut down?

Without some common-sense guidelines, we could become the poorest and most hungry pure people in the whole world!

BASIC INGREDIENTS

We were surprised to hear a prominent farmer from another section of the state talk about buying much of his fertilizer by the carload as separate basic ingredients. For a number of years, "blend" plants in our area have offered these basic fertilizer goods separately — or in almost any conceivable combination

to suit the soil, the crop, and the fancy of the individual grower.

For the plowdown part of the plant food, this has meant a substantial saving over "mixed goods" — either bag or bulk. Even for people with large enough acreages to use carloads of fertilizer, the chore of unloading it, of mixing the N, P, and K or parts of them (or of spreading them separately) strikes me as an awesome job — especially at a season when time is so precious. Makes me appreciate the good facilities and service we so often tend to take for granted!

PITCHFORK RETIRED AGAIN

Last time I commented on an old pitchfork was about one that had been pressed into service to help push brush and trees over as they were cut along an abandoned railroad right-of-way. To be honest about it, the fork handle was too short to give the necessary leverage on a tall tree.

We came up with an 18-foot section of wooden well-rod. Bruce welded a short section of old mower cutter bar (including two knives) to the metal tip on the end of the rod. Those two knives can be jabbed into a tree quite a way up, and they keep the pole from slipping along the trunk.

With the extra length of pole, a 40-foot young elm or ash can be steered quite nicely. It sure beats having some of them falling on the fence, or even over into the crop field!

CHANGING COWS

This winter was one of those rare times when one could sell a good-sized older dairy cow and replace her with a good springing heifer and not be out of pocket more than \$40-\$50. Heifers seemed high-priced, but not when one figured what the old cows were worth for beef.

The demand for calves has also been something else! There are a number of people who buy up good bob calves and fatten them for awhile, or in some cases grow them out. In any event, these folks shorten the supply at the sales and have helped to strengthen the calf market. We've had a few times when the sale of her calf made a heifer really cost no more than we got for the cow she was replacing.

There are quite a few heifer-raisers, many of whom own the cattle and offer them for sale when they are springing. One surprising fact

keeps emerging. There have been more heifers available in the fall months than at any other time of the year. In spite of the greater demand then, it is easier to buy all one needs than at other times of the year.

Most of the dairies that buy herd replacements want them on a year-round basis. The seasonal pattern in the availability of heifers is based on the historical preference for fall-freshening animals. This is still the time we prefer to have our heifers start, but the facts of life are that if one is to keep his barn full, he needs replacements throughout the year.

NOW YOU SEE IT, NOW YOU DON'T

As we enjoy the newness of spring all around us, and as the unveiling of leaves, plants and flowers goes on apace, it's indeed a time of beauty and enjoyment. Remember that old bit of advice that went something like this: "Don't ever buy a house or a farm in May. Look at them in December and March. If you like them then, go ahead and buy!"

This was brought to mind by a comment made at breakfast one dreary morning in March.

The view from our kitchen window normally isn't all that bad. Most times of the year, there is a patch of lawn, flowers, even a bank of crown-vetch, and then fields of corn and alfalfa all highlighted against the eastern sky. But on that rainy morning, there was dead grass, dead straw from last year's crownvetch, a muddy driveway, old brown cornstalks covered with manure, dirty snow, dead-looking last year's regrowth on the hay fields — not really a sight to stir the ink in a poet's pen. But now most anyone could be a poet!

SUPPLY MANAGEMENT

Every publication seems to be trying to outdo the others in giving space to possible nationwide dairy supply management. The impetus seems to stem from the Midwest.

At any rate, here in Order 2 territory, having at long last arrived at a point where all dairymen will be supporting a promotion order, we would seem to have reason for a different point of view. Certainly, we will now want to reap the benefits of our investment in promotion.

This should come in the form of increased Class 1 utilization. If and when this materializes, we may want to look at production in relation to the market needs that exist at that time.





BUREAU

WHAT IS THE SERVICE

BUREAU?

The American Agriculturist Service Bureau was set up to give free help and advice to our subscribers. Here are some of the ways in which we can help:

1. We try to iron out difficulties and misunderstandings between our subscribers and commercial concerns and, when we feel a complaint is justified, we try to arrange a satisfactory adjustment or settlement.

2. Whenever possible, we supply information on commercial concerns. We will tell you if we have had complaints against them.

3. We find answers to many questions, such as where to write for certain information or whom to contact about specific problems. We also answer questions concerning posting and fencing laws.

4. We pay rewards of \$25.00 to the person who gives information leading to the arrest, conviction, and imprisonment for at least 30 days of anyone who defrauds, steals from, or commits arson against a subscriber who has a Protective Service sign posted, except that rewards will not be paid for theft from commercial firms — only farms.

Sorry

We cannot answer legal questions or give any help in legal matters, nor can we handle a complaint that is already in a lawyer's hands.

We cannot handle any complaint that is over 6 months old.

We cannot collect accounts for commercial concerns or settle disputes or claims between individuals.

To Get Attention

In order to avail yourself of our service, the following conditions must be met:

1. Attach to your letter the address label from your latest copy of American Agriculturist-Rural New Yorker. This shows that you are a paid-in-advance subscriber and entitles you to our free services.

2. Write out your question or complaints clearly and fully. Enclose any necessary papers so that we may have all of the facts in your first letter, and include stamps for the return of your papers. If you write us the second time about the same complaint, mention the name of the company. If you are requesting information about a company, tell us what their business is.

3. Be sure to date your letter and include your full name and address.

4. Send your complaints or inquiries to:

Service Bureau
American Agriculturist and the
Rural New Yorker
Box 370
Ithaca, New York 14850.

RECALL

Some of you may be concerned with the following item which appeared in a recent copy of Consumer News from the Office of Consumer Affairs, Washington, D. C.

American Agriculturist, May, 1972

Food & Drug Administration reports the following products are being voluntarily recalled by manufacturers for the reasons stated below:

Sterile C-Clear, a 4-fluid ounce bottle of contact-lens soaking solution made by R M Laboratories Inc. of Broomfield, Colorado. Product is not sterile; tests show bacterial contamination. Consumer should not use the product and should return it to store where purchased.

Sterile C-Clear in 2-fluid ounce bottles and in 1/4-fluid ounce sample bottles. Manufacturer does not sterilize this product. Consumers should not use the product and should return the 2-ounce size to the store where purchased; consumers should destroy sample bottles.

An off-white glazed bowl 6 inches in diameter with 9 decals consisting of 3 varieties of Nabisco Cream of Wheat cereal. Americana Art China Company of Sebring, Ohio, made and distributed the bowls for Nabisco; Americana used the name Pot-Art on the bowls. Consumers should destroy the bowls because the glaze contains heavy metal contamination. Pot-Art is refunding the cost of the bowl plus postage used in ordering the bowl.

HOW WE CAN HELP

"Last fall I read in your October issue that an escrow account had been established under supervision of the Attorney General for refunds to customers of Alexander Sales Corporation. I had been trying to get a refund from them since November of 1970, so I wrote you for the address of the Attorney General.

"A letter to his office made it possible for me to receive my refund of \$25.45 in a relatively short time. I am thankful to Attorney General Lefkowitz, and to your magazine, for making this possible. Your column is a great help. Keep up the good work."

"I received my money back from Aldens this morning. I cannot thank you enough for your efforts on my behalf. It gives me a sense of security to know there is help for people who otherwise might not be able to get their money back."

ADDRESSES WANTED

Descendants of Judah and Mariah Quackenbush Roberts, who lived near Manlius, New York.

Alexander and Huldah Thompson Booth, who lived in Hamden, Connecticut.

Mrs. K. E. Santor, 34 Circle Drive, Willimantic, Connecticut 06226, would like the address of the Mrs. Schwartzer, who lives in Camden, New Jersey, and to whom she sent an American Thread Crochet and Knitting leaflet.

CLAIRE "DUTCH" REYNOLDS of Palmyra, N.Y. has been bringing North American Protection to Wayne County families for over ten years. He says; TEENAGERS NEED PROTECTION TOO! Here are two young men who had it when they needed it.

MULTIPLE
INJURIES IN
AUTO ACCIDENT

Arthur Couperus, 19, Marion, N.Y. landed in the hospital for 29 days after hitting a tree and completely demolishing his car. Four policies paid \$2645.72 in disability income and medical expense benefits.

"My policies paid all my hospital bills plus recuperating income."

INJURES
SPLEEN WHEN
SLED HITS TREE

Randy C. Chapman, 17, Palmyra, N.Y. was in the hospital for 27 days after his sledding accident. His three policies provided medical expense and disability income benefits of \$1,118.56.

"I was very pleased with my settlement and certainly recommend your Protection for everyone."



OTHER CLAIMS PAID

A friend's name may be in this list.

Lillian Cronk, Freedom, N.Y.	\$1028.40	Meredith Ecker, Albion, N.Y.	\$ 711.63
Charcoal fire exploded—burned arms		Rolling log, hook slipped—broke knee	
George C. Parker, Ellicottville, N.Y.	414.28	Roger W. Ferlito, Pennellville, N.Y.	775.43
Kicked by cow—broke arm		Motorcycle acc.—broke collarbone	
Ralph C. Hawley, Auburn, N.Y.	1351.42	Julie Findeisen, Edmeston, N.Y.	500.70
Fell from tree—broke ribs		Automobile accident—inj. knee	
Donald E. Beers, Westfield, N.Y.	1220.87	Ruth Bogart, Richfield Springs, N.Y.	334.94
Caught in spreader—inj. back, arm		Thrown from horse—broke arm	
Frank Pfeifer, Jr., Elmira, N.Y.	460.55	Maria D. Grow, Helena, N.Y.	355.00
Dust from silo unloader—inj. lungs		Fell hanging curtains—broke leg	
Clifton L. Stewart, Earlville, N.Y.	134.93	Luther Hargrave, Lisbon, N.Y.	444.25
Fell from ladder—broke arm		Fell from conveyor—inj. back	
Dennis Gadway, Moores Forks, N.Y.	113.55	Gideon Van Wormer, Middleburgh, N.Y.	3250.00
Stuck by pitch fork—inj. foot		Automobile accident—loss of life	
Franklin H. Rood, Homer, N.Y.	734.45	Donna Goldy, Watkins Glen, N.Y.	667.70
Fell into silo unloader—cut hand		Slipped fell—dislocated thumb	
Kenneth Dorosky, South Kortright, N.Y.	1252.87	Donald H. Warne, Romulus, N.Y.	958.21
Snowmobile into barbed fence—broke jaw		Gunshot wound—inj. leg	
Paul Golub, Lagrangeville, N.Y.	1707.13	Michael Mullen, Canisteo, N.Y.	506.25
Auto accident—inj. back, leg		Gored by cow—broke hand	
Leon Polzin, N. Collins, N.Y.	398.70	Dick Baker, Atlanta, N.Y.	315.56
Hay bale fell—inj. neck		Motorcycle accident—broke leg	
Mary M. Clark, Whallonsburg, N.Y.	114.28	John Elak, Jr., Mattituck, N.Y.	348.92
Stepped through barn floor—inj. leg		Chisel broke—injured arm	
Margaret M. Fefee, Brushton, N.Y.	358.96	Elizabeth Woods, Livingston Manor, N.Y.	124.28
Hit edge of cupboard—inj. head		Hit by cow—broke nose	
Raymond Conover, Johnstown, N.Y.	111.89	Frances Hofman, Owego, N.Y.	485.00
Steel chip lodged in hand—infection		Kicked by cow—broke ankle	
Gerald Scarborough, Basom, N.Y.	2996.44	Mary Searles, Ludlowville, N.Y.	481.66
Caught in combine—injured foot		Stepped on nail—inj. foot	
Robert E. Hull, Prattsville, N.Y.	137.14	Ralph J. Storey, Argyle, N.Y.	359.69
Struck by car door—inj. eye		Caught under cart in barn—broke foot	
Kurt Snyder, Newport, N.Y.	670.20	Daryl Martin, Newark, N.Y.	431.65
Auto accident—multiple injuries		Minibike accident—head injuries	
Robert P. Woodall, Ellisburg, N.Y.	297.14	Daniel George, Strykersville, N.Y.	211.00
Ran over by tractor—inj. ankle		Wrench slipped—broke teeth	
C. Kenneth Waterman, Croghan, N.Y.	266.90	Leonard Secules, Troy, Pa.	982.38
Caught in garden mulcher—cut hand		Fell from ladder—broke ribs	
Ruth Thompson, Hunt, N.Y.	1020.00	George A. May, Erie, Pa.	521.88
Attacked by bull—injured back		Hit playing basketball—broke jaw	
Florence Coon, DeRuyter, N.Y.	400.00	LaRue Seid, Muncy, Pa.	211.43
Kicked by cow—inj. leg		Planing wood—cut thumb	
Sabas Garcia Tellez, North Chili, N.Y.	390.00	John Byma, Augusta, N.J.	818.17
Thrown from truck—broke leg		Frozen silage fell—broke leg	
Leland E. Button, Canajoharie, N.Y.	305.00	Louis Kocsak, Cream Ridge, N.J.	357.00
Run over by tractor—broke toe		Hit by tool box—broke teeth	
John Reed II, Clifton Springs, N.Y.	1268.56	Richard Amadon, West Townsend, Mass.	408.58
Minibike accident—broke leg		Wheel blew up—broke nose	
Jacob Schuurmans, Pine Bush, N.Y.	585.94	Theresa Palmer, St. Albans, Vt.	252.06
Walked into hook—cut eyelid		Crowded by cow—broke wrist	

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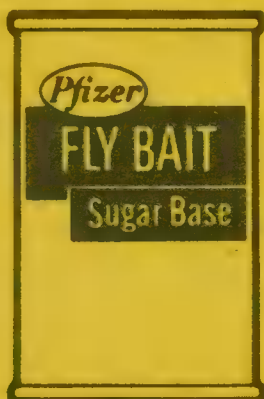
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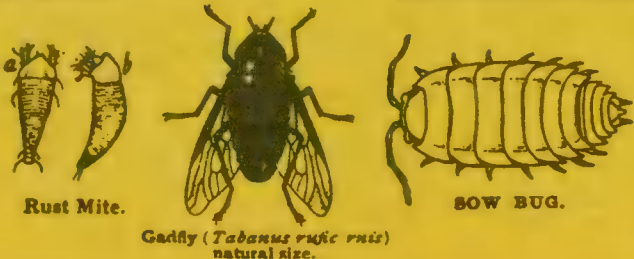


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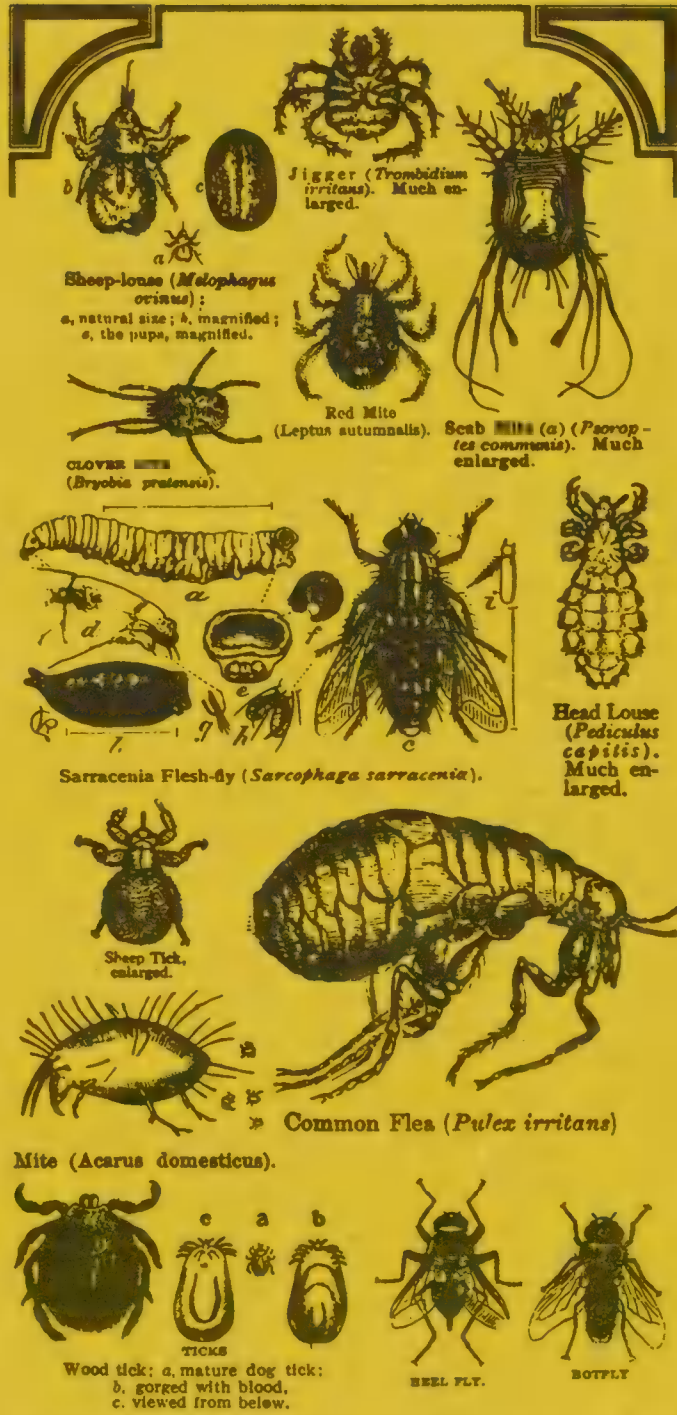
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Gnat (*Tabanus rusticus*) natural size.

Pests

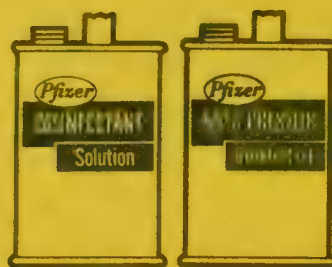


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JUNE 1972

American Agriculturist

and the
RURAL NEW YORKER



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and the
RURAL NEW YORKER

Vol. 169, No. 11

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OUR COVER

Photographer Doris Barker of Rochester, New York, took the cover photo on the Wayne C. Hill farm north of Bristol, Vermont. Oh, what is so rare as a day in June!



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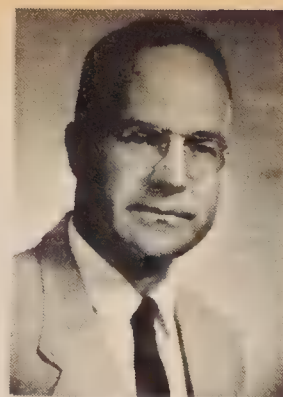
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EDITORIALS

by GORDON CONKLIN



EDITOR STILL AN S.O.B.

Away back in 1962, ye editor raised a voice of caution amidst the stampede to climb on the sugar-beet bandwagon in New York State, and in Maine. Immediately, the old sourpuss was labeled as being "Sour on Beets."

Since then, Pepsico has taken an awesome financial shellacking on its Montezuma (New York) sugar plant, selling it finally for less than ten cents on the dollar . . . a considerable number of beet growers were left holding the bag for thousands of dollars worth of beets for which they claim they are still not paid . . . and the Maine sugar refinery also stands idle, a monument to the absence of enough hard-nosed economic evaluation in the whole project.

After 10 years, another generation of potential sheep are available to be shorn, so it seems appropriate to take another look at the industry which is reported to be headed for the revival tent in 1973.

My files contain a voluminous amount of material written on the subject, and here are condensations of some of the more recent ones:

—*Time Magazine*, on February 9, 1970, commented on the fact that Maine Sugar Industries was in danger of defaulting on an \$8 million state-guaranteed bank loan . . . a danger that soon became reality amidst MSI's bankruptcy proceedings. Perhaps more intriguing, though, was *Time's* report on the fact that Senator Edmund Muskie . . . the "Mr. Clean" of the environmental-improvement crusade . . . had been instrumental in getting the Prestile Stream reclassified so it could legally be used for waste disposal from a potato-processing plant owned by Fred Vahlsing, Jr., also operator of Maine Sugar Industries.

—*The New York Times* reported on March 1, 1970 that Maine Sugar Industries owed the Town of Easton \$158,000, owed 200 Maine farmers \$170,000 for sugar beets, and Maine Sugar of Montezuma, Inc. (a New York subsidiary of MSI) owed \$1.3 million to about 200 growers in New York, Pennsylvania, and New Jersey.

—Walter Rewald, commenting in Central New York's *Auburn Citizen Advertiser* in March of 1970 reported the figure of \$2 million owed to New York State farmers for beets grown in 1969 . . . and also reported a mechanic's lien filed by a German firm called BMA against the Montezuma sugar beet plant in the amount of \$600,000.

—The *Bangor Daily News* commented in December of 1970 that Maine Sugar Industries was fighting legal action brought by 14 New York sugar beet growers (also on behalf of 200 other growers) to collect \$1.7 million allegedly owed them from the 1969 production of beets . . . which had been shipped to MSI for processing.

The same publication reported in February of 1971 on the Sewall Committee, appointed by the Maine Legislature to investigate the circumstances whereby the State of Maine had been forced to pick up the payments of principal and interest for \$8 million in state-guaranteed bank loans made to the now-bankrupt Maine Sugar Industries.

—The *Daily Times* of Woodbury, New Jersey, reported on January 22 of 1971 that sugar beets loaded the previous December 10 were still on the railroad sidings. The railroad would not move them inasmuch as bankruptcy proceedings were underway against Maine Sugar Industries. These beets never did get to the Pine Tree State.

—*The Wall Street Journal*, in November of

1971, reported that Lorelei Corp., a subsidiary of Vahlsing Christina Corp., had purchased Pepsico's Montezuma sugar plant for \$2.5 million . . . a pittance compared to its original cost.

—Bill Caldwell, reporting in the *Maine Sunday Telegram* (Portland, Maine) in April of 1972 tells of the Miner-Schaffer Report that had been kept secret for years until his paper had broken it to the public in March of this year. The government report revealed that Maine Sugar Industries had paid Vahlsing, Inc. \$1,552,853 for electric power that the Miner-Schaffer group estimated **should** have cost \$256,300.

When the sugar plant was built at Easton, Maine, Vahlsing had refused to buy power from utility companies, and built generating facilities of his own. The catch, though, was that he built them across the railroad tracks from the sugar plant . . . **at his existing potato-processing plant** . . . and then supplied electric power to **both** sugar and potato facilities.

The State of Maine, soon after it had foreclosed on the sugar plant, found that Vahlsing planned to cut off electric power to it. So the State had to go to court in order to continue purchasing maintenance power from Vahlsing's generators. Vahlsing soon after sent the State a stupendous bill for that power, but another court fight cut that to **one-tenth** the original amount demanded.

Round three was even then underway, however, with Vahlsing suing the State for a bushel basket of money over the power hassle.

Judging by the diversity of publications that have revealed various aspects of the sweetest mess in the region, farmers far and wide **should** be aware that not all sugar is financially sweet. The rendition here is only a fraction of what's been published across the Northeast about an industry that up to this point has been a tragedy for farmers.

The moral of the story is simple . . . if you are thinking of getting involved with growing sugar beets in the Northeast in the future, be sure you're thoroughly acquainted with the facts of life concerning what has happened so far . . . and better take an attorney along with you every step of the way.

CHANGING OF THE GUARD

New York State Commissioner of Agriculture and Markets Don Wickham retires at the end of June, to be succeeded by Assemblyman Frank Walkley of Castile, New York. Assistant Commissioner Dan Dalrymple will be succeeded at the same time by Senator Ted Day of Interlaken, New York.

Don and Dan deserve gratitude for a job well done . . . on behalf of farmers, as well as for the millions of non-farmers whose lives are enhanced by the regulatory functions of the Department.

New York is fortunate that their replacements are of the same high caliber.

CLEAN SCREEN

Every now and again, I browse through a batch of the latest information designed to help an investor make some money in the stock market. It's sort of a window-shopping spree . . . but it also helps me keep up with the latest in the passing parade.

I've been interested in the impact that the

ecological improvement crusade might have on the relative health of various companies . . . the phosphate scare, the food-additive alarms, the push on pollution-control, and all the rest. Surely, I reasoned, there must be some products that are enjoying enhanced prosperity because of environmental interest . . . and some that are really taking a clobbering.

Aha! Here's a product that should be going down for the count. Highest governmental authorities have proven to their satisfaction that the product is dangerous to the health . . . and even forced its package to carry that warning. The urgency of the health problem was considered so great that TV advertising of the product was forbidden . . . and the clean screen has saved the industry millions in advertising dollars.

Furthermore, it's a product that pollutes the inside air everywhere . . . creating a problem, say authorities, even for those innocent bystanders not directly involved in its use. Consumer advocates may not know it, but the quantity of the product being delivered to the consumer per unit purchased has been **reduced** by about two percent a year since the mid-1950's . . . even as the price per unit has **doubled**.

Wow! In the light of the fervent campaigns to protect consumers and environment alike, here's a product whose manufacturers **must** be on the verge of bankruptcy. But wait . . . their stocks show an **upward** price movement!

Fantastic figures dance on the pages of the investment analysis pages . . . U.S. per capita consumption of this product in 1971 was two percent **above** 1970, and total output was **576 billion** units in 1971. Exports of this product set an all-time record last year, up nine percent from 1970, to a tremendous **32 billion** units!

The cigarette industry is healthy . . . uh, **booming** might be more appropriate . . . obviously a darned good investment in spite of all the hulla-balloo about consumerism and environmental improvement.

When you explore the market for a stock that will weather the storms of the shouting and the tumult, take into full account the **facts** before coming to conclusions based on what might be expected just from the surface indicators! Life's too short to get overly agitated about the contradictions we see on every side . . . instead, chuckle a bit about the inconsistencies that afflict us all!

EMPIRE FARM DAYS

This year's Empire Farm Days will be held on August 8, 9, and 10 . . . located at the research farm owned by Cornell's New York State College of Agriculture and Life Sciences just south of Dryden (and not far from Cortland), New York.

Plan on finding your way to State Route 38 between Harford and Dryden . . . and the signs will lead you to the festivities. There'll be exhibitors of practically every item of farm equipment and supplies you can imagine . . . and the field equipment will be demonstrated under actual field conditions.

The folks from Cornell will have a whole flock of test plots and exhibits set up . . . and research people will be available to explain the usefulness of these test results on the farm.

All in all, it's going to be a great show . . . one you'll find helpful and stimulating.

GUEST EDITORIAL

We do not see modern environmental problems as the result of willful negligence on the part of our industrialized society and its corporate and individual members. Rather they are the logical result of Man's efforts to improve his lot.

History has shown that the triumphs of one age create the problems of the next. — *Malcolm Meyer, President of Certain-teed Products Corporation, Valley Forge, Pennsylvania.*

American Agriculturist, June, 1972

Dates to Remember

June 3 - Steuben County Dairy Festival, Bath, N.Y.

June 4 - Western Massachusetts Goat Show, Northampton, Mass.

June 4 - Beef Field Day, Clough & McLure Hereford Farms, Littleton, N.H.

June 6-7 - 30th Annual Dairy Fieldmen's Conference, Penn State, University Park, Pa.

June 22-24 - 104th Annual Meeting American Jersey Cattle Club, Robert Meyer Motor Inn, Orlando, Fla.

June 24-25 - Claremont Garden Club Standard Flower Show, Junior High School, Claremont, N.H.

June 25 - New England Milking Shorthorn Association Field Day, Charles Noyes Farm, Berwick, Maine.

June 25 - 30-Mile Competitive Trail Ride, sponsored by Finger Lakes Riding Club, Ithaca, N.Y.

June 25-28 - Annual Convention International Apple Institute, White Face Inn, Lake Placid, N.Y.

June 28 - Potato Feast Day, Houlton, Maine.

July 6-9 - NYS 2nd Annual 100-Mile Competitive Trail Ride, Brookfield, N.Y. Sponsored by Empire State Horseman's Association.

July 7-9 - Annual Conference American Junior Shorthorn Association, Acadia Farms, Northfield, Ohio.

July 15 - Maine Broiler Day, Belfast, Maine.

July 15 - NYS Angus Association Field Day, Sir William Farm, Hillsdale, N.Y.

July 19 - Summer Meeting New York-New England Apple Institute, Granite Resort Hotel, Kerhonkson, N.Y.

July 21-23 - Potato Blossom Festival, Fort Fairfield, Maine.

July 22 - New York Junior Hereford Association Field Day, Glenview Farms, Portville, N.Y.

July 22 - Summer Meeting Maine Christmas Tree Growers Association, Carlton Hodges Plantation, Cornville, Maine.

July 25-31 - National Farm Safety Week.

July 26-29 - Annual Meeting American Dairy Science Association, Virginia Tech., Blacksburg, Va.

Alumni of the NYS College of Agriculture and Life Sciences will honor Prof. "Stan" Warren on Saturday, June 10 at an 8 a.m. breakfast in Noyes Student Center at Cornell University. Reservations are required by June 7; call Prof. George Conneman at 607-256-2102.

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What's NEW in the FIELD



by Bill Pardee

Summer annuals

IF your crystal ball shows a need
for extra feed this August and Sep-
tember, you can still fill the gap.
Sudangrass and sorghum-sudan hy-
brids planted during June can pro-
vide you with lush pasture and green-
chop during late summer and early
fall when other forages may be short.

These warm-weather grasses take
off fast, can produce lots of forage
after your pastures give out and be-
fore corn silage comes in. They fit in
as emergency crops, to replace win-
ter-killed forages, or they can go in
after an early hay crop has been
taken off.

Best Use

Sudans and sorghum-sudans serve
best for pasture or green-chop, less
well for silage. And don't plan on
them for hay; their thick stems are
just too tough to dry. They'll ensile
O.K. with some wilting, but will
have lower feeding value than corn
silage. So your best bet is to use
these annuals only to fill in during
summer and early fall. Then plan
on corn and alfalfa for your winter
feeding program.

Among the sudangrasses, Piper is a
leading variety. Several good hybrid
sudangrasses are also available.
Sorghum-sudangrass strains are nu-
merous. While differences exist be-
tween varieties, these are normally
less than the difference between
types . . . and you'll do well with
any major variety from a reputable
seedsman.

Avoid buying sorghum-sudangrass
from outfits advertising mail order
supplies, claiming amazing yields in
the South and West. Northeast
farmers have been burned in the
past with tall stemmy sorghums,
poorly designed for short Northeast
seasons. As in all crops, it pays to
buy from a reputable seedsman, one
you know and who wants your busi-
ness next year.

Well Done

In planting sorghum-sudan, pre-
pare a well-worked seedbed, as you
would for other forages. Seeds are
small, and will not do well under
minimum tillage. Choose well-
drained fields, with drainage ade-
quate for corn. Sorghum-sudans do
poorly in wet spots or in poorly-
drained fields.

Fertilize as for corn. A high phos-
phorus fertilizer drilled with the seed
speeds come-up. How you put on
nitrogen and potassium isn't im-
portant, so long as you get the fer-
tilizer on. Most farmers disc their
fertilizer in, and this should bring
fine results.

Drill sudan or sorghum-sudan at
25-40 pounds per acre. Higher seed-

ing rates can give finer stems in the
first harvest, but make little differ-
ence in later cuts. Total yield will be
affected by seeding rates. Sudan-
grasses are normally smaller-seeded
than sorghum-sudans, so you'll get
more seeds per pound. Move towards
the lower end of the above range
with sudan, the higher end with
sorghum-sudan.

Highest Yields

Highest dry matter yields come
from one cut taken in late summer
or early fall, for green-chop or silage.
You'll get lower yields, but probably
better use from these crops, if you
harvest them two or three times dur-
ing the summer for pasture or green-
chop. This lets you take advantage
of the unique value of their fast
growth for mid-summer feed.

With reasonable weather, you can
expect grazing in 35-50 days after
planting, green-chop in 50-70 and
silage in 90-110 days. Since corn
can give you silage in the same time,
plant a short-season corn if silage is
your goal. It's pasture and green-
chop where these other forages shine.

Do not pasture sorghum-sudan
when growth is less than 18 inches
tall, or when forage has been severely
stunted by drought or right after a
frost. During these stages, these crops
can be high in prussic acid and/or
nitrates, both of which can be toxic
to livestock. At all other times, these
crops are safe to graze and very
palatable.

Sudangrass, particularly Piper, is
bred for low prussic acid potential
and is safe for practical purposes at
all growth stages. In fact, sorghum-
sudans themselves rarely reach toxic
levels. Yet no agronomist wants to
be responsible for farmers losing
livestock, so we still warn users to
abide by the warning above. These
margins give you a good safety fac-
tor, and deaths or sickness from these
crops are rare. Yet the warning is
worth noting.

No Horses

Be sure to keep horses off sudan
and sorghum-sudan pastures. Green
forage from these crops can cause a
serious disease of the urinary tract
in horses, called "cystitis syndrome."
This has shown up in Texas and other
southwestern states where these
crops are grown more plentifully
than in the Northeast. Horses can
eat dry hay made from these crops
with no problems.

Most sorghum-sudangrass seed is
produced in the Southwest. On some
occasions, pollen has apparently
blown into producing fields from

(Continued on next page)

American Agriculturist, June, 1972

LIVESTOCK



Idea Book — Practical ideas on all aspects of pork production, chosen from suggestions submitted by producers across the nation in a recent contest sponsored by American Cyanamid Company, have been incorporated in a 48-page booklet entitled "Pork Producers Big Idea Book." Free copies are available from the Animal Industry Department, American Cyanamid Company, P. O. Box 400, Princeton, New Jersey 08540.

Sub-Zero Calves — Winter calving is common in the 100-plus cow herd at the Northern Beef Demonstration Center, Chatham, Michigan. Manager Gary Greathouse reports that the calves not only thrive in below-zero temperatures, but at market time, have a 60 to 70-pound weight advantage over those born during normal spring calving.

In addition to plenty of attention for the animals, two devices give the winter calves a head start. About 15 or 20 minutes after birth, the calf is placed in a calf dryer... an insulated box where air is continuously circulated at about 100 degrees F. Next the calf gets two shots... one a combined shot of vitamins A, D and E... plus the other injection of Bo-Se, a selenium product to prevent vitamin E deficiency.

Then the cow and calf are put in a stall in the pole barn. Each stall has a tent-like heating unit for the calf. The unit, which is hung from a rafter, consists of three 250-watt infrared heat lamps attached to a plywood circle with canvas hanging down to bedding level. Calves quick-

ly learn to go into the tent when they get cold. Normally, three lamps are used the first night, two the second night, and one the third night... then out the calves go into the wintering lots.

The Center is a cooperative effort between Michigan State University and the Upper Great Lakes Regional Commission. Its aim is to demonstrate profitable cow-calf production methods for the northern parts of Michigan, Minnesota and Wisconsin.

Livestock Directory — The National Society of Live Stock Record Associations has published its 1971-72 annual report and directory of the 53 member recording associations representing beef and dairy cattle, swine, sheep, goats, and horses and

ponies. The report lists the name, address, and the secretary of each breed association, together with a breakdown of the breeder and registration figures for each category. For a free copy, write to: Allan C. Atlaston, Secretary, 3964 Grand Avenue, Gurnee, Illinois 60031.

Swine Parasites — A nationwide survey of the country's top hog-producing counties recently completed at the University of Wisconsin found parasites in every herd studied; breeding stock was just as heavily parasitized as slaughter animals, reports parasitologist A.C. Todd.

A good parasite control program can protect profits. No single drug can remove all the species, and Todd recommends using different drugs

in rotation. Tramisol is the only one effective against lungworms. Atgard (dichlorvos) will remove whipworms. Either of these drugs will also control many other parasite species. Deworming agents based on piperazine are especially effective against ascarids.

Pigs should be dewormed several times before they go to market. If housed on concrete, they should be dewormed as close to weaning as possible, and again on the finishing floor. Weanlings turned onto a dirt lot should be given an additional treatment.

Treat the entire herd. Not all parasites show symptoms, and if only the animals showing the most severe damage are treated, the bulk of the parasites will not be touched.

Annuals

(Continued from page 6)

nearby Johnsongrass fields. Johnsongrass, a southern weed, is sometimes called "the quackgrass of the South." This has caused concern in Maryland and Delaware, states where Johnsongrass can overwinter. However, winter cold kills out Johnsongrass in Pennsylvania, New York, and New England. These crops can be safely used, with no danger of introducing a weed pest.

Go Easy

In planning production of these crops, go easy if you haven't grown them before. They grow fast, and can get away from you if you are not used to them. Start with five acres or so near the barn, which you can pasture or chop easily.

Once you've tried them and found how much you can handle, expand acres gradually. One of the saddest men I have known was a man who had planted 200 acres to sorghum-sudan—and wondered how to handle the jungle of forage he'd created!

Other annual grass crops are available, including black amber forage sorghum, and Japanese and other millets. While each of these may have a place under certain situations, our results suggest the sudans and sorghum-sudans will put you far ahead in forage yields.

American Agriculturist, June, 1972



If you want a good light truck, take the muscle from a good heavy truck.

Take the 392 cubic inch V-8 from a big INTERNATIONAL LOADSTAR,® for instance. And make that engine available as an option in the International 1110 pickup truck.

Then, give the pickup leaf-springs all around. So it has the suspension to handle really heavy loads.

But remember that a heavy truck engine and a heavy truck transmission and a heavy truck suspension don't have to mean a heavy touch. So offer power steering and

brakes. And deluxe vinyl upholstery. Air-conditioning. Even an AM/FM radio. In fact, offer practically any option anyone could want.

Look, any pickup's fine for riding around the farm. But if you also expect it to work around the farm, you want something more. The International 1110. The pickup with the Loadstar muscle.

When you're at your International dealer, take a test drive. In both of them.



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NEW HAMPSHIRE TAX

New Hampshire voters approved in November of 1968 a constitutional amendment making it legal for the State Legislature to pass laws providing for current-use assessment of real estate. Briefly, current-use assessment of farm land means that it must be assessed on its value for farming rather than on the basis of some alternate use. A two-thirds majority was required to pass the amendment ... and the "yes" voters carried that majority by a razor-thin 119 votes!

The 1969 legislative session in the Granite State set up a 12-member committee to propose legislation for the 1971 session. However, the bill

brought forth as a result was amended to provide for a nine-member Open Space Land Study Commission instructed to bring legislation into the 1973 session.

It looked as though long-suffering farmers would have to wait another two years for assessment according to present use. But Representative Johnson of Winchester saved the day by introducing a bill mandating current-use assessment of all forest and farm land between April 1, 1972 and June 30, 1973. It passed both houses of the legislature, and was signed by the governor.

Currently, then, present-use assessment of farm land is temporarily underway in New Hampshire, with the prospect of more permanent legislation in 1973.

Food For The Spirit



by Robert L. Clingan

When Christ was born, the angels sang, "Peace on earth, good will among men." What did they mean by the word "peace," and does their song have any relevance beyond the Christmas season?

There are three distinct meanings to the Biblical word for peace. Sometimes it carries the historic connotation of the Hebrew word, shalom, used in personal greeting. This word meant wholeness and fulfillment. Sometimes Bible writers

used the word in a Christian sense meaning inner peace, peace of heart, and peace of mind. It also has the meaning of classical Greek with which the writers of the New Testament were familiar. That meaning is the absence or cessation of hostility between rival groups. This is the kind of peace the angels must have had in mind when they sang, "Peace on earth."

Short Supply

This is the kind of peace that is so much in short supply. In this time of turbulent change, there seems to be less peace on the earth all the time.

Yet the Bible stresses this kind of peace through Christ, the Prince of Peace. He taught us that, "Blessed are the peacemakers for they shall be called the children of God." Paul wrote that we who had been reconciled to God through exercising faith were to become ambassadors of peace between men.

A Christmas issue of a "shopper" magazine thrown on our porch had on its last page a poem, part of a commercial advertisement. No author was given, but the words stir us to recognize how far we have fallen short of the life to which Christ calls humanity, and also indicate a hope that his dreams and God's purpose in sending him to this world will be realized in time, and among men.

THE CHRISTMAS GHOST

Stirring in the memories of
Nineteen hundred years gone by
There is a ghost whose substance is
Veiled in words that each year die—
Empty phrases we resurrect to use a day
or two and then
Send back into the dust of time
Until it is Christmas once again.

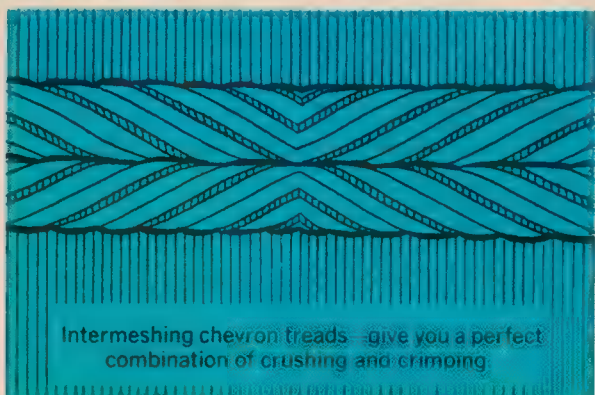
In a world that knows no peace
"Peace on earth" the words declare
And while men sow the seeds of hate
"Good will toward men" is written there.

Let the spectre have his day
Bring out the phrases trite and worn
We'll play our parts the same old way
And say the lines we'll later scorn.

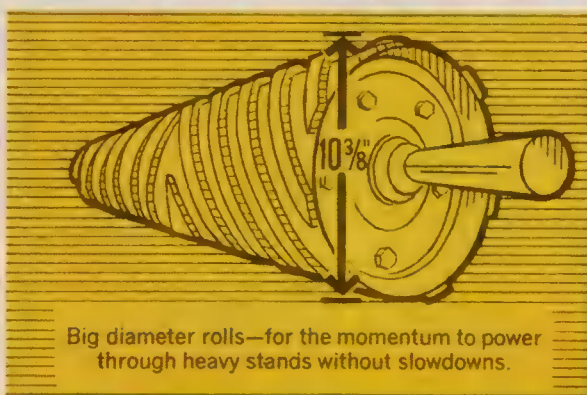
As in all things a time must come
When a balance will be reached
When shame becomes as burdensome
As that which the Messiah preached.
And then please God, will dawn an age
Of love completely unsuppressed
When men join hands in brotherhood
And put the Christmas ghost to rest.



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type that are 9'3" wide and a smaller pull-type that cuts a 7'3" swath.

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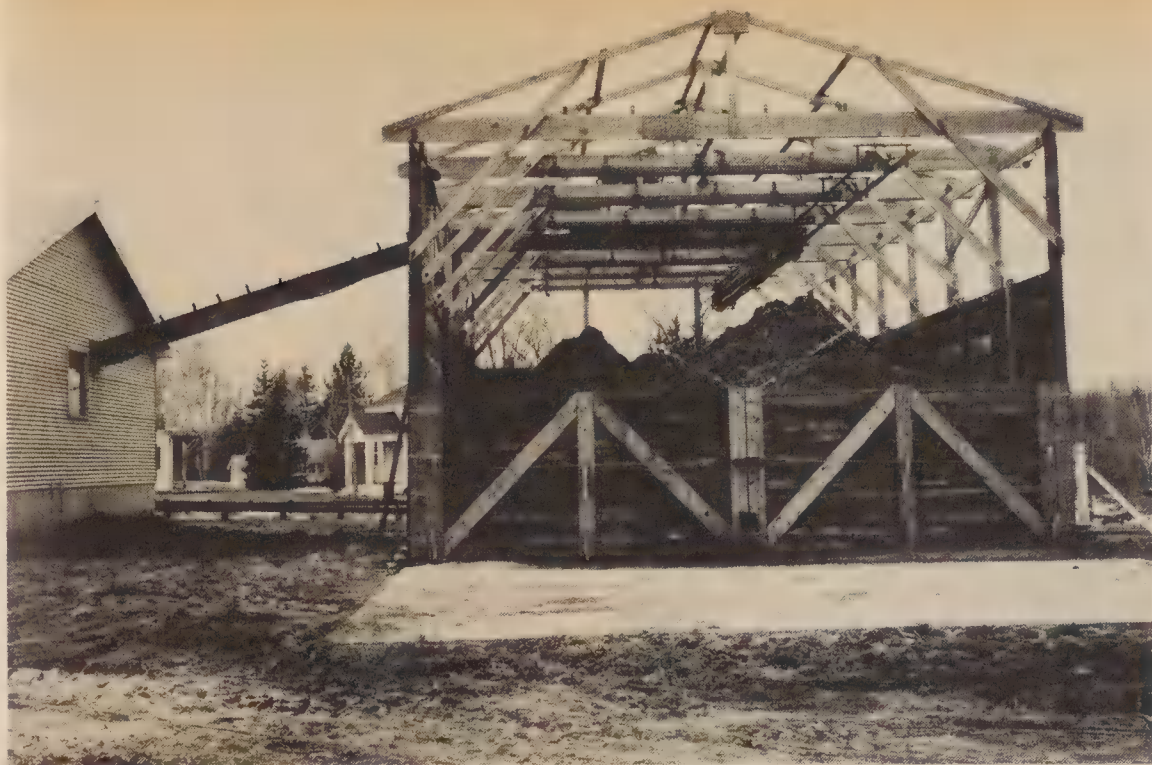
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The experimental bunker at Ashland Farms has no roof, but one could easily be added. Photo: University of Wisconsin.

manure storage

Difficult spreading conditions and the potential pollution problem from odor and runoff into streams make wintertime manure handling one of the biggest headaches for dairy farmers in northern areas. Much research to help solve the problem is currently underway, and experiences at the University of Wisconsin Ashland Experimental Farm give some indication of how one type of relatively low-cost manure handling works.

Here a bunker is used to store the manure. This looks a little better than a stack and doesn't cost much more than a large concrete slab needed for the stack. It's made of treated wood, 9 feet high, and measures 24x56 feet. It has a concrete floor with two drains to carry away seepage. Estimated cost was \$3,700.

Seepage is held in a 3,000-cubic foot retention pond which cost \$250, including the piping from the storage bunker.

Extension

A 48-foot extension of the barn cleaner carries the manure to a 28-foot horizontal conveyor over the bunker. Half the bunker is filled, then the conveyor is reversed to cover the other half. Total installed cost for the conveyor, including wiring, is figured at \$3,900. This brings total cost for building the facility close to \$8,000.

Storage begins in early November. About half the manure is cleaned out from the front of the bunker and spread before spring planting; the rest is spread in late August, just before fall plowing. Manure produced in the barn during the summer is put in the front part of the bunker and hauled away whenever time permits. The retention pond is pumped out and sprinkled on adjacent grassed areas in the summer.

So much for the setup. How did it work?

From a practical farm sense, it seemed okay. The fertilizer value of the manure in the two years of tests averaged out to around \$700; between 6 and 14 percent of the value was in the seepage. With winter spreading, the manure would have been worth considerably less, because over 45 percent of the nitro-

gen is lost during the first 96 hours ... and there would be the pollution problem from the runoff.

Odors

Odors from the storage were noticeable only on damp overcast days when the wind was blowing toward the farmstead. On clear days, no odor was noticed. During hauling, typical odors were noticed and would last for two or three days if the manure wasn't plowed or disced in.

Odor from the retention pond presented about the same picture. When the pond was pumped out the odor wasn't as strong as when the bunker was cleaned.

Flies weren't a problem in the manure held in August, but they have been at other locations where the problem is being studied. Evidently environmental conditions at Ashland Farm aren't conducive to fly breeding.

FARM WORKERS

A study of 79 farm workers (employees) was undertaken in 13 New York State counties in 1971 by researchers at Cornell University. Here's what they found:

— Average age of 37 years with 72 percent of the farm workers under 45 years of age.

— Average schooling of 10 years ... and 65 percent had less than 12 years of school attendance.

— Average assets per farm worker was nearly \$8,000, and average net worth was nearly \$5,600.

— A whopping 63 percent hoped to be working on the same farm in 1976 ... only 27 percent aspired to own their own farm.

— The most-mentioned advantage of farm work recognized by these employees was the opportunity to work **outdoors**, followed by **variety of work**.

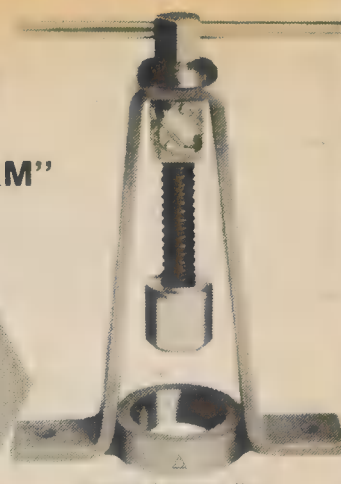
— Biggest gripes: not enough time off ... but 42 percent didn't have any gripes at all!

— Among selected items of interest to career farm workers, vacation with pay ranked highest among these workers.

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Corn should be sprayed twice—starting at 2 ft. level. Soybeans should be sprayed at their first bloom. Spray alfalfa one week after second and third cuttings. Spray pastures again in September.

In summer—always spray in early morning, late afternoon, or on cloudy days.



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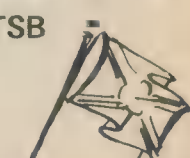
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Doc Mettler comments on:

feeding foals

THE lush green of early summer is in itself a beautiful sight. A herd of cows grazing across a hillside can add to this beauty, but to make the scene complete we need other things, such as a sleek mare standing under an apple tree while her foal nurses. The problem here is that June and the lush green won't last. By late July, the grass will turn brown and the cattle, the mare and perhaps even the foal will get thin.

The cattle can be taken care of by feeding them inside or from a shaded bunk, but what about the horses? Yes, we can feed the mare to supplement the pasture and feed the foal in a creep, but by this time, unless you have another horse, you are going to want to ride your mare. What can we do about this?

More Milk

The modern dairy farmer is shipping twice as much milk per cow as his father did thirty years ago. There are several reasons for this, but all of them go back to the fact that to accept new ideas, one must put aside some old ideas that have been accepted for hundreds of years.

One of these old ideas, applying to both horses and cattle, is that pasture alone is all a horse or cow needs to produce a maximum amount of milk. Another is that nothing will grow a foal like his mother's milk. Once the horseman is willing to accept the fact that these statements are no longer correct, he is ready to grow a better foal, and find a way to ride his mare, too.

The old time horseman must have understood part of this, because he knew that a "grass fat" horse did not stay fat long during hard work. He knew a horse working hard just could not get enough good out of grass alone to stay in working condition.

Not Enough

A mare feeding a big strong foal just can't eat enough grass to produce enough milk to keep the foal growing, any more than a cow can make a hundred pounds of milk a day on just grass. A further point is, that even if the mare did produce all the milk a foal could drink, he would be too full of milk to have room for other things he needs.

Pasture is the best place for mares and foals for several reasons, such as exercise, sunshine, sanitation and just plain ease in caring for them. The trouble is, we tend to picture all pasture as it was in early June. You can have your hay analyzed and the tag on your grain bag tells what you are feeding, but to know what is in the pasture is difficult and changes so fast that if you did have an analysis, it would be of little value.

I would like to take you to a good Standardbred breeding farm in Hillsdale, New York, and show you the yearling foals. Your first reaction might be that they look like two-

year-olds. Then I would like to ask you to pick out the oldest, born last January, and the youngest, born in late June. The truth is that the size is determined more by heredity.

Some of you have already guessed why these foals... who were all weaned the same month in the fall, some at three months of age and some at nine... are all nearly the same size. Let's talk about it.

The mares on this farm are foaled out in individual box stalls and during the first few days stay in the stall with their offspring. However, just as soon as weather permits, mare and foal go out daily to a larger paddock for exercise. This can be done as soon as three or four days when there is no ice and it is not storming.

The mares are on a pelleted so-called complete ration, with a small amount of good hay. I have seen the foals eating pellets from the mother's manger when only days old. By the time the foal is a month old, he is eating pellets real well, and of course, eating a little hay also.

When warmer weather comes or by the time the foals are three weeks old, whichever comes first, the mares can go out to a yard with other mares and foals. A creep is available for the foals to eat their own pellets without competition from the mares. (A creep is a little pen with feed in it, constructed so the foal can get in and out, but the mare cannot.)

On this particular type of ration, horses will not overeat, as with regular grain. Because of this, if you have only one mare in a pastured paddock, the ration being in front of the mare all the time will assure that the foal gets his share.

Too Fat

Once in a while, an individual mare will get too fat on this ration. One way to get her to cut down is to place the pellets several hundred yards from the water. The pellets are difficult to eat without water, so she will go back and forth between the two. This not only slows down the eating, but gives her exercise.

Once a foal is eating pellets real well and growing well, he is ready to be weaned at any time. Usually this won't be until he is three months of age, but if you want to wean him at a month or so you can by feeding him dry milk replacer along with his pellets. The milk replacer is supposed to be mixed with water, but there is no reason why your foal can't eat it dry if you start him out a little at a time.

There is no question that mares on good pasture in early spring produce a tremendous amount of milk, and during the first three months the foal is able to get along fine on this plus the pellets. However, after three months he will actually grow faster on pellets and hay alone, since he will eat more of them with less milk. Pound for pound there is more nu-

(Continued on next page)

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**Dr. Naylor's
DEHORNING
PASTE**

American Agriculturist, June, 1972

Feeding foals

(Continued from page 19)

trition in the pellets than the milk.

Now comes the big question. How are you going to wean that foal when the mare has an udder full of milk? During June on good grass this is difficult at best, so if you are going to do it that early in the year, take her off pasture. Start to restrict her water slightly, cut her down to old timothy hay, and after three days take the foal away so he cannot get to her or she to him. (Be sure here you use board fences to separate them.)

During the first few days after starting to wean, restrict the mare to pail watering and allow her nothing but poor-quality (not moldy) hay. Most important, do not try to relieve the pressure on her udder by hand milking. Buy some iodine base teat dip (not udder wash) from a dairy supply and dip the mare's teats twice a day until there is no sign of dripping milk for several days.

Colic

You may find your mare will develop colic signs from too much pressure on her udder, but your veterinarian can give her tranquilizers or pain relievers to help this. Taking the pressure off will help temporarily, but if you do, you are not only prolonging the drying process, but your mare may develop mastitis.

Pressure from milk within the udder and withholding water and highly nutritious feed is usually all that is needed to dry any mare. Camphorated oil massage may or may not be beneficial; it certainly adds work and is difficult to apply. Your veterinarian may prescribe hormone treatments to decrease milk production in certain cases. Because of side effects, hormones should never be used unless under a veterinarian's supervision.

As in all things with livestock, nothing always works every time and there are individual differences. An occasional mare will persist with colic or become a serious problem

TRAVEL GUIDE

Some of the nation's most efficient farms, where other farmers can study proven and profitable ideas to use in their own operations, are listed in a new book called "Agricultural Travel Guide."

Written by Frank and Pamela Lessiter, the book lists and gives details on some 2,400 "Wonders of American Agriculture" that farmers and others in every phase of agriculture can visit. These attractions cover agriculture all the way from farm to supermarket to help farmers better understand how food and fiber is produced, marketed, processed and distributed.

Conveniently arranged in alphabetical order by state, city and town, the listing includes successful family farms, experimental plots, processing plants, universities, laboratories, manufacturing plants, museums and many other types of agricultural attractions where visitors are welcome.

The book is available at \$4 per copy from: Agricultural Travel Guide, 1717 Mura Lane, Mount Prospect, Illinois 60056.

American Agriculturist, June, 1972

because of nervousness. When this happens, you may have to return the foal.

Dried Off

I have seen quite a number of mares who have lost foals through accidents and have had to be dried off suddenly, but the only serious trouble I have ever seen was when mastitis developed from incomplete milking. If the mare was left with no hand milking and the pressure allowed to build, mastitis was less apt to occur. Naturally the mare will drip milk for a few days, and this is why it is suggested that a teat dip be used. The dip lessens the chance of bacteria build-up in the milk at the end of the teats.

All foals should be wormed under

direction of your veterinarian at an early age, sometimes as young as three weeks. Never try to wean a foal until he is free of worms and keep him worm-free by routine worming during his early years.

Once you wean the foal, he will appear a little rough for a few days and then will start to pick up. If you have waited until three months of age to wean him, by the time a month has gone by he will be bigger and better than if he were on his mother's milk.

As for weaning at less than three months, I have not had enough experience to say the same would be true, but with milk replacer, pellets and a little loving care, there is no reason why he shouldn't grow quite well.

Someone is sure to ask about the psychological effect on the foal that has been weaned early. Here too I am not qualified to answer when less than three months of age is concerned. However, I have always felt that animals' personalities were half inherited and half the reactions of their owners. Nervous jumpy people have nervous jumpy horses, dogs and cows.

I do feel that if a foal is weaned early, but not separated completely from other horses and forgotten, he will develop normally. In fact, perhaps he would learn to depend more on you than his mother. If this is the case, you've got half your training and breaking problem solved already.

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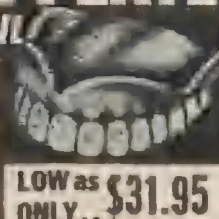
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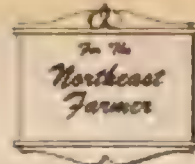
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Dollar Guide



BIG DRUG HASSLE going on ... but not involving addicts. Instead, the Food and Drug Administration is considering forcing removal of certain antibiotics from livestock feeds because of possibility that some livestock-bugging organisms that also attack man may develop resistance to these drugs. If this is done, some college economists estimate increases in food costs to the consumer of one billion dollars annually because of lowered efficiency of production.

Some studies by microbiologists already indicate that feeding antibiotics to livestock does not present health hazard to man. However, British have already prohibited feeding of all but a few "non-therapeutic" antibiotics to farm livestock.

DAIRY PROMOTION ORDER in New York State will raise \$3,875,000 annually on basis of an assessment of five cents per cwt. It will be used for national, state and local advertising of dairy products, as well as education and product development.

FOOD COSTS will be hot topic at least until elections this fall. Here's ammo for discussing the matter with non-farmers: U.S. consumers spend only 16 percent of disposable income on food (lowest in world) ... farmers receive 38 cents of consumer food dollar (lowest in history) ... few hours of labor required to buy food in U.S. (17 minutes for a dozen large eggs) ... price of beef at the farm in 1972 same as in 1952.

Don't let the politicians and the people enjoying wage increases get away with beating on farmers for rising food costs!

FIRST ROUND MILKING PARLOR in New York State is under construction at farm of Alan Weatherby on Seneca Road, west of Trumansburg. It has 8 stalls ... cows are milked as device (made by Circle Milking Inc.) carries them around like a merry-go-round. A lagoon receives waste from parlor.

ALFALFA WEEVIL is not the threat in Northeast it once was (because of widespread release of parasites), but it can still do extensive damage in some areas. Cut first crop early and check second growth carefully for damage warranting spray of methoxychlor, Diazinon, parathion, Imidan, Guthion, Sevin ... or commercially-prepared combinations of some of these pesticides.

EGG PRICES (N.Y., wholesale, large white) are predicted by industry experts to average 39 cents per dozen July-September, and 42 cents October-December ... and they're talking 42 cents for first quarter of 1973.

LEASING TRACTORS and other major equipment for one, two or three years is option offered by John Deere under new plan. Company says "RV-leasing" provides new flexibility for farmers in machinery management.

CALF LOSSES on the average Michigan dairy farm amount to 18 percent of those born. Researchers there advise: feed colostrum within 6 hours of birth ... newborn calves housed in individual pens have a better survival rate ... calf losses are lowest when the wife does the feeding.

USDA BULLETIN ... on operating three-phase motors from single-phase power is designated Farmers Bulletin 2252, available for 15 cents each from Superintendent of Documents, Government Printing Office, Washington, D.C. 20402.

DAILY SPREADING of manure on a dairy farm is lowest-cost system (as compared to stacking or liquid storage) ... report University of Massachusetts researchers.

EGG PRODUCTION continues to hang high ... with Connecticut and Pennsylvania sharply up in recent figures from year ago. Rate of lay up nearly two eggs per bird in 1972 as compared to 1971 ... and that's a lot of omelets!

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MOVING?

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American Agriculturist

American Agriculturist, June, 1972

VEGETABLES



Viroids — Discovery of a new class of disease-producing particles even smaller than viruses can affect research into the unknown causes of many diseases of both plants and animals, including man. The particle, named the viroid, revealed itself after eight years of research on the potato spindle tuber disease by Agricultural Research Service pathologist Theodor Diener.

Dr. Diener describes the viroid as a fragment of ribonucleic acid (RNA) 80 times smaller than the smallest known virus. The viroid can, however, invade cells and disrupt their functions as effectively as any virus, and their discovery opens a new path for research into diseases which seem to be viral in nature but whose cause has eluded scientists. These include some human cancers, infectious hepatitis, multiple sclerosis, exocortis of citrus, chrysanthemum stunt, and scrapie of sheep.

Blowout — An Ohio grower with approximately an acre of air-layer plastic greenhouses tells what happened when his area was hit by three major windstorms, each with winds of 75 mph or more. "In the first 75-mph blast, we lost two outside layers on different 100-foot sections on two plastic houses. The bottom layer stayed intact.

"We thought we were going to lose the whole acre until it finally dawned on me what was taking place. The houses run east and west, and the wind was blowing from the south. The wind had so much force when it hit the south side of the greenhouse that it forced all the air between the two layers of plastic to the other side of the house, thus increasing the air pressure on the north side and exploding the outer layer like an over-inflated tire.

"We deflated the other house immediately, then everything was okay. In the other two windstorms, damage was prevented by deflation of the house in time. They take strong winds very well with no air in them!"

Bean Mold — Experiments in 1971 by Cornell plant pathologists show that systemic fungicides can control white and grey molds in beans grown for processing . . . if they are applied early enough to allow the active ingredient to reach most of the flowers before they are old or dead. Falling blossoms which lodge in plant parts and in the soil allow the disease to spread. Young blossoms ordinarily are not susceptible to the infection.

The only available systemic fungicide cleared for use on processing beans is Benlate 50W. One application at the rate of 2 pounds per acre applied three days before full bloom was one Cornell recommendation for 1971. Another was one application of 2 pounds at pre-bloom and another at full bloom.

Various spray experiments in 1971, with one application of 2 pounds Benlate 50W in 100 gallons of spray mixture per acre at 400 psi, suggest some leeway in timing of application. Plots sprayed when 80 per-

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cent or more of the plants showed their first white bud were as well protected as those sprayed when in full bloom. A second application 5 or 6 days later did not improve control in 1971 experiments. Another year, a second application might be necessary, depending on weather.

Carrot Harvester — A tractor-driven carrot harvester, which converts to work on onions, potatoes and other vegetables, has been developed by Excelsior International N.V., the Netherlands, and is now available for export to the U.S. and other countries.

The new machine, which is operated solely by the tractor driver, is said to harvest between 26,500 and 33,000 pounds of carrots per hour,

and to be suitable for all types of soil except very heavy clay. It can be dismantled from the tractor after use, so the tractor can be used for other purposes.

For further information, write to: Netherlands Consulate General, Commercial Division, One Rockefeller Plaza, New York, New York 10020.



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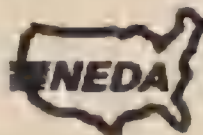
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Northeast FARM EXPERIENCE



SWEET SMELL OF SUCCESS

Charles Houghton has a 15,000-bird poultry house on the Perry City Road not far from Ithaca, New York. Nearby is his rearing house for starting chicks and growing pullets.

Ninety percent of the egg production here is delivered to stores, diners, and restaurants in nearby communities... or retailed at the farm. This way, prices have tended to remain far more stable than is true of the gyrations so typical of the wholesale egg market.

The Houghtons own 110 acres, rent enough more to grow 250 acres of crops (wheat, oats and corn). Between 60 and 70 percent of the grain used for poultry feed is home-grown.

Problem

With a stabilized price and economical feed supply, Houghton should have no problems... right? Wrong! In common with many other poultrymen, he has struggled for some years with the Problem of the Pungent. Although nearly 100 houses are located within potential "smelling distance," only two of his neighbors have really objected to odors from the flock... which for many years was quartered in cages over dropping pits where manure was undisturbed between deposition and cleanout.

In response to these objections, Houghton has tried nearly everything... including at least six chemical odor-masking agents, as well as water foggers discharging a fine spray over fan outlets. He even spread poultry manure and then plowed it under immediately to suppress field odors.

The Ditch

Finally, in 1971, he heard of the oxidation-ditch setup being operated on a small scale (250 birds) by researchers at Cornell University. He took a long look at it, and decided to take the plunge... er, decided to go the aeration route with a liquid-manure system.

There were existing pits measuring 22 inches deep and 6 feet wide under the cages... used up to this time as

undisturbed temporary storage for manure in water, under anaerobic conditions. The anaerobic (without air) bacteria are the "bad guys" when it comes to odors, and the aerobic (oxygen-loving) bacteria are the "good guys." One approach to odor problems, then, is to incorporate lots of oxygen into the effluent... and the jolly little aerobes will do the rest.

So the Houghtons did some remodeling on the four existing pits, connecting them in groups of two so that a manure slurry could be moved constantly around the house. Four aerators were installed... each powered by a 5-horsepower electric motor. Each aerator consists, in addition to the motor, of a big paddle that beats air into the slurry (and also moves it rapidly along the channel), a gear-reduction transmission, and deflection hoods that protect birds and workers from spatter.



Charles Houghton checks amp meter, one of which monitors each motor on four aerator units. Desired reading of current draw is 20-25 amperes per motor.



Aerators move manure suspension around house in clockwise direction (from right to left in picture.)

How has it worked since start-up on January 10 of 1972? "Better than I had even hoped for," Houghton reports. "It has solved the odor problem both at the building, and in the field."

Within the house, a faint odor of ammonia lingers because the system is loaded to capacity, and there are not yet enough bacteria of the right kind in the slurry to eliminate ammonia. However, the level is not high enough to be toxic to birds or workers, and ammonia is lighter than air so it dissipates quickly outside the poultry house. "The key to this whole procedure," Houghton comments, "is to get the right bacteria, and in sufficient quantity, into the system."

Features

Some features of the system:

- There are 50,000 to 60,000 gallons in the entire system of pits at 14 inches in depth. Solids level runs about two percent in the liquid suspension.

- The depth of manure suspension is maintained at 13 inches as a minimum and 15 inches at maximum... although it could go to 17 inches without harm.

- Ten loads of liquid waste are hauled per week (800 to 900 gallons per load). Complete cleanout is not recommended because plenty of bacterial seed stock is needed to keep aerobic digestion at a desirable level.

- Costs include 1/4-cent per dozen of added electrical charges (\$60 per month more)... aerators presently operate 24 hours a day.

- Installation cost was \$9,300... including four aerators (\$7,400), remodeling the existing building (to connect pits), and the construction of a new power supply to the building. This includes labor, practically all of which was hired to do the job.

- Foaming is prevented in the pits by adding 2.5 quarts of used cylinder oil per day.

- Dewdrop-type waterers add enough water to the system so that so far no additional is needed.

Houghton speaks highly of the technical help given him by people at Cornell University. Cornell's Waste Management Laboratory has already become internationally known, and its research people have spent many hours at the Houghton farm.

Looking ahead, Houghton admits there is yet much to be learned about the use of aeration to overcome the odor problems of the poultry industry. But he sums up, "The system has proved to be practical for me, and I know it will work. After all those years of checking wind direction and general weather conditions before spreading manure... and having to select a field with great care, depending on those conditions... it's great to be spreading material that is so odorless as to be practically undetectable!" — G.L.C.

ROADSIDE STAND

Although Max Shaul of Fultonham (Schoharie County), New York, grows a very sizable acreage of vegetables for wholesale marketing... and 1,200 acres of corn for grain... he and his family also operate a

roadside stand selling vegetables grown on 25 acres. A wide range of vegetables are included... as Max comments, "Just about everything except string beans, lettuce, and celery."

Plastic mulch is used for weed control on tomatoes, melons, Spanish onions, eggplant, cabbage, and squash. Max reports that the black plastic also speeds up maturity. It's laid down by machine from rolls four feet wide.

"I paid for my own college education during the hard times of the 30's by operating a roadside stand with only two acres of vegetables," Max comments. "Wholesale prices of field corn, cabbage, and carrots have changed very little over the past 20 years... even though production costs are up sharply. A retail business at a roadside stand offers an attractive opportunity to get better... and more consistent... margins than are available in wholesaling farm products."

A roadside stand business has been operating at the Shaul place for 40 years... so some customers are the second generation that have been finding top-quality produce there. The enterprise now is open from the middle of July to the Thanksgiving holiday. Gross proceeds from this 25-acre business are at a figure that would convince many a grower to follow Max's advice to move closer to the consumer for enhanced marketing opportunities! — G.L.C.

GROWING

It was symbolic that on the day I visited Dale Parmley of Venice Center (Cayuga County), New York, he was winding up the details of purchasing another farm. He's built up acreage rapidly in the years he's been farming... 560 acres owned, plus 200 acres of cropland he's renting.

Along the way, Dale worked seven years for Agway (then GLF)... and was also "moonlighting" at farming to get a financial stake, and credit rating. Eleven years ago, he bought... at its appraised price... the farm where he had grown up, and began six years ago to farm full-time. Of his years working in agribusiness, Dale comments, "It was a darned good education... very helpful to me in farming."

Accounting

For management facts, the Parmleys rely heavily on figures provided by the New York State Extension Service Farm Business Management Electronic Accounting Program. Figures from the program's summary for 1971 reveal: 2,110,800 pounds of milk sold... 17 percent of the milk check used to buy feed... sold 14,909 pounds of milk per cow (598,670 pounds per man). Dale hires one man full-time; other help is on a part-time basis.

There are 168 free stalls in the modern barn recently erected at the Parmley farmstead, presently housing 160 milkers. They're grouped by production... the high producers get haylage, corn silage, high-moisture ear corn, and soybean protein supplement all mixed into one ration. In addition, they are fed hay free-choice... consuming about 10

(Continued on next page)

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pounds per cow per day.

Grain (14 percent protein) is fed in the double-five herringbone milking parlor, all that the cows can eat while there. Ten milker units are used by two people in the pit. Mrs. Parmley takes her turn in the milking parlor occasionally as a relief milker . . . and also raises the calves, and keeps the account books.

Dale uses long straw as bedding in the free stalls . . . replacing it every two weeks, and shaking it up twice a day. Manure is scraped daily to a loading ramp, then to the spreader.

The amount of investment by a typical farmer in his business has skyrocketed in the last two decades, and many observers wonder how a young man can hope to get a start in commercial agriculture in the face of the need for so much capital. But there are still young families who make the grade through good management and a lot of hard work . . . the Parmleys are fine examples of that select group.—G.L.C.

FRUIT PLANTING

Merritt Thomas has 106 acres of apples (95 bearing) and 15 acres of sour cherries on his farm not far from North Rose, (Wayne County), New York.

He's been experimenting with an innovation in planting young trees, and reports success with the method so far. First step is to fall-plow field to be planted, then work it up the following spring.

In 1970, he set 1,500 trees by just shoving a two-inch dowel into the ground, then placing the root-pruned whip. In 1971, he planted 500 cherry trees by using a subsoiler to open up the soil.

The subsoiler has a homemade opener bolted to it that spreads earth. It is drawn in a regular pattern across one dimension of the field, then at right angles to that pattern . . . where the patterns intersect are locations for trees.

"I think this modified subsoiler has some advantages over an auger for planting trees," he says. "An auger can glaze the holes on the sides and create water-movement problems. Furthermore, the subsoiler cracks the ground in many directions to provide areas for roots to follow."

Merritt has for some time done his own grafting on purchased rootstocks . . . is now growing a number of his own in stool beds. Earth is mounded over rootstock, causing it to "stool out" similar to a small grain plant. — G.L.C.

BUILT THE BARN

Bruce Nichols of Ogdensburg, New York, operates a dairy farm from which production is partly bottled on the farm and sold through home delivery. At present, about 3,400 quarts per week are so handled . . . delivered three times a week to homes in two-quart, and in gallon plastic containers.

The herd here is housed in a recently-built barn having 102 free stalls. The holding area at one end of the barn has a concrete-slat floor, underneath which is a tank measuring 21×56×12 feet deep.

This tank will hold an accumulation of manure from a period of two months to ten weeks between pump-

ings. Wash water from the double-four milking parlor (eight milker units) goes into this tank. Water used to wash milking equipment . . . detergent and all . . . goes to an underground holding pit for later use in washing down the parlor with a high-pressure hose.

Beds of free stalls are made of hauled-in clay, but Bruce isn't sure this is the right material . . . wonders if he'll end up concreting 'em.

Home Built

"We built the barn ourselves," Bruce comments, "and I wouldn't recommend doing the whole job again. We neglected herd management too much because time was

limited . . . we lost too much sleep . . . and we made some mistakes that a professional builder would have avoided.

"I feel that we could have made better use of our money, time, and materials if we had hired a professional foreman and we provided much of the labor . . . either that, or we could have contracted most of the large foundations and framing."

Roughage feeding here varies a bit . . . as it does on most farms . . . according to what's available. Cows get a minimum of hay (8 bales per day, each 30-40 pounds, for 80 cows) . . . plus either haylage or corn silage, whichever is available from the 2565 Harvestore.

How come Bruce continues to operate a small retail milk business

in an era when milk retailers have . . . and are . . . dropping out in all directions? "Combination of pride and stubbornness, I suppose," Bruce replies. "The retail milk business has been in the Nichols family for over 50 years. We have always taken pride in turning out a high quality, fresh product. We get a feeling of accomplishment when we can start with roughages and end with processed milk at a satisfied customer's doorstep.

"The fact that our deliveries are at a level where our bottling facilities, truck and coolers are operating at capacity helps make it a paying proposition. The diversification of business helps to keep us on our toes to meet the challenges of managing two separate businesses."

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busman's holiday

FARMERS who manage to "get away" for a few days often like to travel to other areas and take a look at efficient farm operations of a type similar to their own. We can't guarantee that any farmer would always welcome a visit, any more than you would, but time it right and most of 'em probably will be glad to take a few minutes to swap ideas with someone from the Northeast.

If a trip through Michigan is on your vacation (or business) docket this year, here are names of some outstanding farmers . . . recipients of the annual "Farm Manager of the Year" awards presented by Michigan State University:

Jarvis Joet, Rt. 5, Holland — Family poultry farm operation. Two fully-mechanized cage laying houses, with capacity for 36,000 layers and facilities for producing 14,000 pullets in a batch; 300 tillable acres, largely in corn.

George Mayer, Rt. 2, Bronson — Annually produces and sells over \$100,000 of gladioli on 56 acres.

C. A. "Dick" Koester (Shepherd Farm), Rt. 1, Shepherd — About 375 head of choice steers fed out and marketed each year; 440 tillable acres almost entirely in corn.

John, Jerrold and Lyle Fraaza (Plover Vale Farm), Rt. 2, Zeeland — About 100 registered Holsteins averaging 19,319 pounds milk and 743 pounds butterfat per cow in '71. Primarily corn and quality forage on 165 tillable acres.

Fred and Harold Baker, 5448 Carrigan Road, North Street — Cattle feeding business with corn the major crop on 320 tillable acres. Farm noted as Centennial Farm in 1965.

June I. Bent, Rt. 3, Marcellos — A 300-acre one-man swine operation. He produces over 200 litters of pigs and markets about 1,500 hogs a year. Half of his tillable acres are in corn, the rest in pasture, hay and grain. Buys his protein supplement.

Fred Near, 75 East 4th Street, Shelby — About 130 acres of various fruits, plus 40 acres of asparagus. Uses mechanical harvesting.

Steve Leuenberger, Rt. 2, Beaverton — Diversified business with over 500 tillable acres: 150 acres navy beans, 45 sugar beets, 30 wheat, 100 corn and 140 pasture and hay. Live-stock program includes 25 beef cows and about 50 ewes.

Carl Schoonover, 15557 Farnsworth, Stockbridge — Has converted a sandy, run-down farm into one of the better potato farms in Michigan. About 160 acres of early potatoes, with harvest completed in July.



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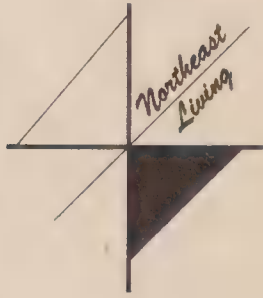
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use cheese many ways

by Alberta Shackelton

Cheese is so versatile! The many main dishes, salads, sauces, desserts, snacks and appetizers that use cheese make it a staple kitchen food item. Since its protein is the same high quality as that in meat, fish and eggs, it can be a satisfactory substitute for these foods, sometimes at a saving. Cheese also contains the calcium and riboflavin of milk.



You will find these two bulletins from the U. S. Department of Agriculture helpful additions to your Kitchen Bookshelf.

How to Buy Cheese, H.G. Bulletin No. 193, 20 cents

Cheese in Family Meals, H.G. Bulletin No. 112, 15 cents

Send your request and money to Superintendent of Documents, Government Printing Office, Washington, D.C. 20402. Be sure to include name, address and zip code.

CHEESE SNACK TRAY

Variety in types and shapes of cheese, plus flavor preference and imagination, provide an attractive cheese tray for a summer meal. The tray pictured shows a square Edam, a round Gouda, Swiss cheese slices alternated with sharp golden yellow American slices, a round cylinder of smoky cheese and slices of caraway cheese.

Rolls of a variety of luncheon meats and sprigs of watercress (or parsley) add color, form and taste contrast, as well as additional protein. Bread slices for make-your-own sandwiches or several kinds of crackers, relishes, fruit bowl and beverage complete the meal.

COTTAGE CHEESE

FRUIT PLATE

- 2 pounds creamed cottage cheese
- Lettuce cups
- Pineapple and apple slices
- Peach and pear halves
- Grapes and berries in season
- Mint leaves, watercress or parsley

For each serving, place a scoop of cottage cheese in a lettuce cup in center of a dinner plate. Arrange fruit slices and halves in spiral fashion around cottage cheese mound. Garnish with grape clusters and season's berries. Tuck in greens between fruits.

Serve with a dressing made by folding together equal parts of mayonnaise or salad dressing and whipped cream, flavored and tinted with grenadine. Serves 8. A good go-along would be date-nut, banana-nut or apricot bread and caramel custard for dessert.

FRUIT GLAZED CHEESECAKE

- 1½ cups fine zwiebach or graham cracker crumbs
- 2 tablespoons butter
- 2 tablespoons sugar

- ½ cup sugar
- 2 tablespoons flour
- ¼ teaspoon salt
- 2 ½-lb. packages cream cheese, softened to room temperature
- 1 teaspoon vanilla
- 4 eggs, separated
- 1 cup half and half or light cream
- Choice of fruit - pineapple wedges, halved strawberries, drained canned apricot halves, grapes, blueberries

Combine crumbs, sugar and butter and blend well; press onto bottom and slightly up sides of a 9-inch spring form pan.

Combine and mix well the sugar, flour, salt and creamed cheese and stir in vanilla. Add egg yolks, one at a time, and mix well after each addition; stir in cream or half and half. Fold in the stiffly beaten egg whites and pour mixture on top of crumbs.

Bake in a moderate oven (325°) about 1 to 1¼ hours, or until set in the center. Cool, remove rim of pan carefully, and remove cake to serving plate and refrigerate.

Arrange fruit attractively on top of chilled cake. Spoon slightly cooled glaze over top and refrigerate. To make glaze, combine ¾ cup canned fruit juice, 1 tablespoon lemon juice, and 1 tablespoon cornstarch mixed with 2 tablespoons cold water and cook, stirring constantly, until thickened. Serves 10 to 12.

In strawberry season, try a **Strawberry-topped Cheesecake**. Crush a cup of strawberries, combine with 1 cup water, cook 2 minutes, and put through a sieve. Mix 1½ tablespoons cornstarch and ½ cup sugar and stir into strawberry mixture. Cook gently with stirring until clear.

Add a few drops red coloring if desired. Cool slightly and pour over about 2 cups of whole fresh berries arranged over top of cheesecake. Refrigerate.

COTTAGE-BLUE CHEESE DRESSING

- 1 cup cottage cheese
- ½ cup crumbled Blue cheese or Roquefort
- ½ cup sour cream
- 1 tablespoon lemon juice
- ¼ teaspoon salt
- Onion salt, celery salt, paprika to desired taste

Beat together the cottage and blue cheese until fairly smooth. Blend in the sour cream, lemon juice, salt and seasoned salt if used. Cover and chill. Makes about 1½ cups. Dressing may be thinned if desired with more cream or milk.

VERSATILE QUICKIE CHEESE SAUCE

- 1 large can undiluted evaporated milk
- ½ teaspoon salt
- 1½ teaspoons dry mustard
- 1 tablespoon steak sauce, if desired
- 2 cups grated processed American cheese

Simmer evaporated milk, salt, mustard and sauce, if used, over low heat just to below boiling (about 2 minutes). Add cheese and stir over low heat until cheese melts, about 1 minute longer. Makes about 2½ cups.



Photo: National Dairy Council

For luncheon any day or a Sunday night supper, serve an attractive assortment of cheeses and cold cuts for the main course.

Serving suggestions:

Quick Macaroni and Cheese

Cook 2 cups elbow macaroni according to package directions. Drain macaroni, add 1 recipe Quickie Cheese Sauce and mix well. Put in casserole and bake in preheated moderate oven (350°) until heated through. Garnish with chopped parsley or green onions.

Vegetable Cheese Casserole

Cook one package frozen mixed vegetables and 1 cup frozen tiny onions according to package directions. Drain and add 1 recipe Quickie Cheese Sauce; mix well and place in 1½-quart casserole. Top with buttered cracker crumbs, crushed herb-seasoned poultry stuffing or corn chips and bake in preheated moderate oven (350°) until well heated through.

Open-Faced Grilled Sandwiches

Place toast slices on cookie sheet or jelly roll pan. Top each with sliced turkey or chicken, tomato slices and crisp bacon slices. Top with Quickie Cheese Sauce and place under broiler for a few minutes to brown.

Cauliflower with Mushroomed Cheese Sauce - Make Quickie Cheese Sauce and stir in 1 cup sliced mushrooms (canned or fresh), sautéed

in butter. Serve hot over cooked cauliflowerets.

For an attractive platter of cauliflower and broiled tomatoes, place a whole cooked cauliflower in center of large serving plate and top with either plain Quickie or Mushroomed Quickie Cheese Sauce; surround with broiled tomatoes. To make tomatoes, place thick slices on shallow pan, sprinkle generously with buttered crumbs, and broil until lightly browned and warmed through.

FRENCHED HAM SANDWICHES

- 8 slices white bread, spread with soft butter
- 1 cup ground cooked ham
- 1 cup shredded Swiss cheese
- 1 hard cooked egg, chopped
- ½ cup dairy sour cream
- 1½ tablespoons pickle relish
- 1 egg, slightly beaten
- ½ cup milk

Combine ham, cheese, egg, sour cream and pickle relish. Spread over buttered side of 4 slices bread and top with other 4 slices. Combine egg and milk. Dip both sides of sandwiches in egg-milk mixture and place in a shallow buttered pan.

Bake 10 minutes in a preheated hot oven (450°). Turn sandwiches with a pancake turner and bake 5 to 8 additional minutes. Serve hot.



GOING BAREFOOT

Down rain-washed lanes, when days steam heat,
Mud caresses small bare feet,
Or dew, across a morning's green,
Washes those bare feet cool and clean.
All small fry, skin-aware of stone,
Walk proudly through a world they own,

And any country child can be
Cousin to flower, brook or tree,
Can claim as kin all outdoor things
With fur or petals, leaves or wings
By being less than twelve years old,
Kicking up dust like dry-hot gold!

by Geraldine Ross

No child who lives in the country is poor. Who needs monetary wealth, with a day full of sun to spend! Any spring or summer meadow holds booty to rival the city florist's most imaginative (and costly!) display. Cowslips lift cups carved of cool gold. Moist hummocks offer the blue of violets, while here and there a white or a tiny yellow blossom hides. Rapt little searchers squish along, aware in every pore of the physical feel of the season, from the soles of their bare feet, up!

Most city kids have to wear shoes . . . but where winds know soft songs and light is lyrical, brooks are for wading, dirt roads are for kicking up dust, and woods are for scuffing through left-over leaves!

American Agriculturist, June, 1972

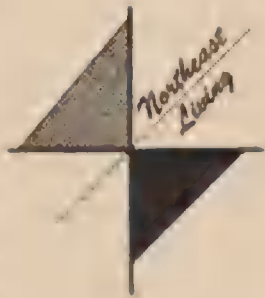


GARDEN TALK

by Doc and Katy Abraham

Growing Tomatoes

This year instead of growing your tomatoes on stakes or a straw mulch, why not try growing them on a wire fence? A fence made of concrete reinforcement material (available in lumber yards) has mesh about 5 inches square. You pound two posts in the ground and string the fence from one post to the other.



Plant two rows of tomatoes, one on each side of the fence, and let them climb the fence. Actually, the tomatoes do not climb; you merely train the vines as they grow, using pieces of cloth or binder twine.

The tomatoes are easy to pick, easy to spray, and they have fewer mildew and disease problems than the vines which are allowed to ramble on the ground. Snails are the real pests when tomatoes are left to ramble; if you train them up a fence, the snail problem is nil. If you want only two or three vines, grow them on a cylindrical corset made of reinforcement wire.

Poison Ivy Again

A reader from Maine writes, "You spoke about destroying the poison ivy vine, but you neglected to give its victims any cure for the discomfort an ivy rash can cause."

"The last two summers (I've seen 78 of them), I got poison ivy badly. The poisoning spread from my hands and arms to my body. I used a lotion put out by a well-known drug firm for seven consecutive days, but with no improvement.

"Finally, a friend told me how to cure it, and this is how—bruise and crush with your hands some leaves and tender stems of the wild flower, Touch-me-not, and rub the affected parts with the juice and crushed leaves. This common plant, also called Jewelweed, has a yellow blossom and is a favorite with hummingbirds.

"Before it goes out of blossom, it is full of a thin, watery juice. It's almost unbelievable—just one application of this juice did more for me in several hours than about 20 applications of the drugstore lotion."

Red African Violet

A reader has been trying to produce a red-bloomed African violet by crossing the Episcia with the common African violet. Will he succeed? Unlikely.

It's a waste of time, since the scarlet "African violet" is not any kind of a violet, but is an Episcia. The genus Saintpaulia (common African violet) is related to the Episcia, but they are still far apart genetically and are incompatible.

Those Bitter Cukes

Recently we said that the nature of bitterness in cucumbers is not too well understood. Dr. Richard Robinson of the Vegetable Crops Department,

New York State Experiment Station, tells us that bitterness is due to chemical factors which are found not only in cukes, but also in squash and in some gourds.

Not all people can taste bitterness. In order to taste it, you must be a "taster," or have a certain genetic make-up in your own taste buds. Some people never inherit the ability to taste bitterness.

Professor H. M. Munger, a plant breeder at Cornell University, was kind enough to tell us that he's been working on the bitterness factor and has transferred the non-bitter characteristic to varieties Marketmore 70 and Tablegreen 65, both of which are good slicing varieties for the home garden.

If you can get a variety known as Spartan Salad, latch on to it because it is non-bitter and has a higher degree of resistance to powdery mildew than any other American variety of cucumber. It is also resistant to mosaic and scab. Just why seed catalogs do not list this one is a mystery. It could be that the seed trade does not want to produce a variety strictly for home garden use.

Meanwhile, give your cucumber vines plenty of water to help keep down bitterness (it's worse in dry soils). Also, keep fruits picked daily.

English Walnut Trees

Last year many AA readers had tiny maggots inside the husks of their walnuts. They also noted that when the hard shells were cracked open, the meats had a furry growth of mildew on them.

The worms were the walnut husk maggot, common in home-grown walnuts. If you're really serious about saving them, apply Sevin, 2 tablespoons to a gallon of water, in late July when nuts are about 3/16" in diameter.

The problem of moldy walnut kernels is a matter of too slow drying, even though you scrub off the black outer shell and let the nuts dry in the sun. In commercial walnut producing areas, studies have shown that in order to prevent mold, the husks must be removed as soon as nuts drop to the ground. If they are left in a bag even for one day, it can be harmful.

In some areas, artificial heat is required for rapid drying. After husking and washing, the nuts are spread out in a warm room with good air circulation, using an electric fan. This fall gather the nuts as soon as possible, remove the husks, and spread them out in a warm garage.

I hope some AA readers who are nut growers will write and tell me how they grow nuts that are free from mold and worms.

CALENDAR DATE

by Eleanor C. Wood

Summer is the active season
When boys and girls, for no good reason
Slam until they nearly splinter
The doors they left ajar all winter.

Let's go!

by Lois O'Connor

Not everyone likes museums, even big important ones, but a trip long or short can be interestingly punctuated by an occasional stop at a small museum. It will give you a rest break and often provide tips on unusual places to explore in the region.

Most sections of the country have numerous local historical museums, and in this respect the 14-county Finger Lakes Region of New York State is singularly blessed, thereby offering the traveler excellent choices. There is considerable variety in what these museums have to offer, including collections of Indian artifacts, pioneer implements and Civil War mementoes.

Many significant Indian events took place in the Finger Lakes Region. It was the birthplace of the great Iroquois Confederacy and the rightful home of Hiawatha, a revered Indian chieftan, who was misplaced in a western setting by the poet Longfellow. The Historical Society Museum in Canandaigua has one of the two original copies of the famous Pickering Treaty, made between the United States Government and the Indians in 1794. It has more signatures of Indian chiefs than any other Indian treaty in the United States.

Pioneer material usually fascinates both boys and girls. You will find old farm implements and tools of various trades, household equipment for cooking, as well as spinning wheels and looms, which in some museums are set up for operation by visitors who wish to try a hand at these homely chores.

The Museum of the Livingston County Historical Society in Geneseo is a delight. It is housed in what was originally a cobblestone district schoolhouse, built in 1838. Here you can see an original Concord coach, red with yellow trim. It was owned and used by the famous and distinguished Wadsworth family way back in 1870.

Perhaps the Wayne County Museum in Lyons has the most unusual quarters, for it is housed in the former Wayne County jail, built in 1854. It features the old cell blocks, a collection of weapons that were taken from prisoners and part of the gallows used in 1863 in the county's only hanging.

Pumps and Women's Rights

You can see two unique displays at the Historical Society Museum in Seneca Falls. Here are many reminders of the fight to win voting rights for women and a most unusual exhibit sponsored by Goulds Pumps, Inc.

In 1840, Elizabeth Cady Stanton and Lucretia Mott were greatly angered when they were forced to sit shielded from public view during a world anti-slavery convention in London. Mrs. Stanton, a resident of Seneca Falls, and Mrs. Mott, a Quaker from Philadelphia, were so incensed at being barred from proceedings at the London convention because of their sex that they straightway began plans for an equal

(Continued on page 21)



Badger Northland Inc., Kaukauna, Wisconsin, has introduced a new liquid manure soil injection device as an optional feature on their conventional and vacuum liquid manure tanks.

According to Badger engineers, the new injection system minimizes odor and runoff while maintaining the maximum value of liquid manure as fertilizer.

A battery-powered silage cart is being sold by Agtek . . . operated by four 6-volt batteries, and power by a 24-volt DC motor. It has a capacity of 30 cubic feet, is driven and unloaded by the use of hydraulic motors. New York distributors include H. S. Crane, Oneida; Cummings & Bricker, Batavia . . . as well as Hein's Sales at Williston, Vermont.

With Our ADVERTISERS

The Surge QTO or Quarter Take-Off milker, a new concept in milking developed by Babson Bros. Co. Research, is of considerable interest to dairymen. The electronically-controlled unit automatically removes the teat cup when each quarter is milked out. Results from almost one million milkings . . . both in the laboratory and in actual field tests . . . show advantages in labor efficiency while maintaining top milk production and good overall udder health. As high as 68 cows milked per man hour was recorded at one of the field test locations.

The Surge QTO is available to dairymen in 1972 on only a limited basis. However, a complete report on all aspects of development and testing is available from Babson Bros. Co., Dept. AA, 2100 South York Road, Oak Brook, Illinois 60521.



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'72

7377. Star-stitch borders in two tones accent these crochet Chanel jackets. Easy; use worsted. Sizes 32-38 incl. Directions. 50 cents

4761. Fashionable mandarin style. PRINTED PATTERN, New Misses' Sizes 8-18. Size 12 (bust 34) short dress 2 $\frac{3}{4}$ yds. 45 inch. 50 cents

4981. Pick the most thinning lines. PRINTED PATTERN, New Half Sizes 10 $\frac{1}{4}$ -20 $\frac{1}{2}$. Size 14 $\frac{1}{2}$ (bust 37) takes 1 $\frac{1}{4}$ yds. 60 inch. 50 cents

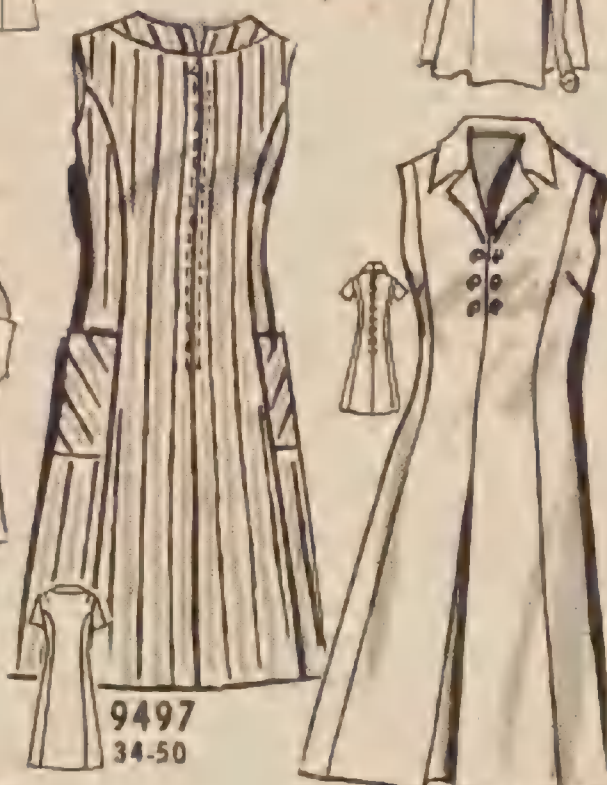
959. Quick-crochet vest and bag. Use worsted in multicolor. Just two identical pieces for vest. Directions, S, M, L included. 50 cents

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9085. Slimming dress, pantsuit. PRINTED PATTERN, New Half Sizes 10 $\frac{1}{4}$ -20 $\frac{1}{2}$. Size 14 $\frac{1}{2}$ (bust 37) takes 2 $\frac{3}{4}$ yds. 35 inch. 50 cents

In addition to a thrilling vacation in Spain and Portugal, you will enjoy the two leisurely Atlantic crossings aboard the luxurious SS Rotterdam.

See Spain and Portugal

On most of our recent trips, we have traveled by air to the places visited. Now we offer you a change of pace, two leisurely Atlantic crossings on the luxurious S.S. Rotterdam when we go to Spain and Portugal this fall. Dates for this tour are September 24 to October 19, and we hope you'll come with us.

Lisbon is the first place we visit; sightseeing will include St. George's Castle, the famed Coach Museum and the fascinating fish market. A short drive from Lisbon takes us to see the cream and pink palace at Queloz, Pena Palace at Sintra, the picturesque fishing village of Cascais and the fashionable seashore resort of Estoril.

Madrid is unlike the rest of Spain and unlike other European capitals, for it is a relatively new city, younger than either New York or Boston. You'll find wide boulevards and the hustle and bustle of a modern metropolis. We'll see the Royal Palace, Prado Museum and Retiro Park and then drive into the countryside to visit ancient Toledo, which has changed very little in the past thousand years.

Next comes a full day's excursion to Segovia, the heart of old Castile, with its fortress-castle, the Alcazar, and then to Escorial to see the massive monastery built by Phillip II. Before we leave Madrid, we'll have time to shop in the beautiful stores, stroll along the boulevards, and revisit any place which particularly interested us.

The historic city of Granada is situated at the foot of the Sierra Nevada Mountains. For seven centuries it was the stronghold of the Moors, until conquered by Ferdinand and Isabella in 1492. The magnificent Alhambra is considered to be the rarest piece of architecture in the western world. We'll also visit

the gypsy quarter of Monte Sacro.

Seville, with its shady patios, marble courtyards, fountains and flowers, is perhaps the most "Spanish" of all Spain's cities. Sightseeing will include La Giralda, the Palace of St. Teamo and Maria Luisa Park, also the tomb of Columbus and Don Juan's home.

We drive through the hill towns and along the Algarve Coast on our way back to Lisbon to board the S.S. Rotterdam and a relaxing cruise home to New York.

Our tour agents, the Travel Service Bureau of Needham, Massachusetts, have planned an exciting trip which includes the places you've always heard about. Like all AMERICAN AGRICULTURIST tours, our Holiday in Spain and Portugal is a first class, escorted, all-expense vacation. Our tour manager looks after all details, and you will travel in the most carefree, enjoyable way possible and with a friendly, congenial group of people. Make your reservation soon, so you won't be disappointed.

There's Still Time

You can still join our Delta Queen Cruise on the Ohio and Tennessee Rivers from June 28 to July 5 if you make your reservation at once.

Also, space is available on the following tours which we have described to you in previous issues.

Pacific Northwest and Canadian Rockies (July 8-26), Greece and Greek Isles Tour (July 11 to August 1), Heart o' the West Holiday (July 29 to August 19), Grand Alpine Holiday (August 3-21), Alaska Holiday (August 6-19), Eastern Canada and Bermuda Cruise (August 18-31), and the Eastern Canada and Gaspe Tour (August 26 to September 9). Write today for the itineraries which interest you.

Gordon Conklin, Editor
Box 370-T
Ithaca, New York 14850

Please send me without obligation on my part, the following tour itineraries:

Pacific N'wst-Canad. Rockies — Eastern Canada — Bermuda Cruise — Grand Alpine Holiday
Heart o' the West — Eastern Canada — Gaspe Tour — Delta Queen Cruise
Alaskan Holiday — Summer Rocky Mtn. Tour — Spain and Portugal
Greece and the Greek Isles

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Let's (Continued from page 19)
rights convention in this country.

The Elizabeth Cady Stanton Room at the Seneca Falls museum contains impressive, sometimes amusing documents and items pertaining to the women's suffrage movement, including an 1852 issue of *The Lily* edited by Amelia Bloomer. The displays commemorate the First Woman Suffrage Convention which was held in 1848 in Seneca Falls, and they pay honor to the courageous women who started the fight for equal rights.

Almost 10 years before the historic woman's rights convention, another event took place in Seneca Falls that was to have a profound and continuing impact on the well-being of the community. In 1839 the manufacture of wooden pumps was started in an old cultivator shop by Thomas J. Paine and Noah Caldwell. The business was discontinued the following year because of competition from two other firms. After several more changes, Downs & Wheeler manufactured the world's first iron pump in Seneca Falls in 1845.

Six major firms were in the pump business over the years, until in 1943 Goulds Pumps, Inc., became the sole survivor and today operates the largest plant in the world devoted exclusively to the manufacture of pumps.

The Pump Room is a graphic tribute to the industry that has sustained the economy of Seneca Falls for 133 years. Space limitations permit only display of smaller hand pumps which were the basis of the industry.

Send for Booklet

The few museums noted barely suggest the number that exist in the Finger Lakes Region or the quality and variety of exhibits. Most of them, even the larger ones, are open only several days a week, and their hours all differ.

Complete information about the museums, as well as many other places of interest, is listed in the Finger Lakes Travel Guide which may be purchased for 50 cents at most magazine shops in the region, or may be obtained from the Finger Lakes Association, 309 Lake St., Penn Yan, N. Y. 14517.

A source of information helpful in planning any trip is the regional tour books published by the American Automobile Association for its members. Also, most states have a travel bureau, usually a part of the State Department of Commerce, that will send a packet of free travel information on request.

Whether you take just a day-long outing on the spur of the moment or plan a longer jaunt, "Let's Go!"

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American Agriculturist, June, 1972



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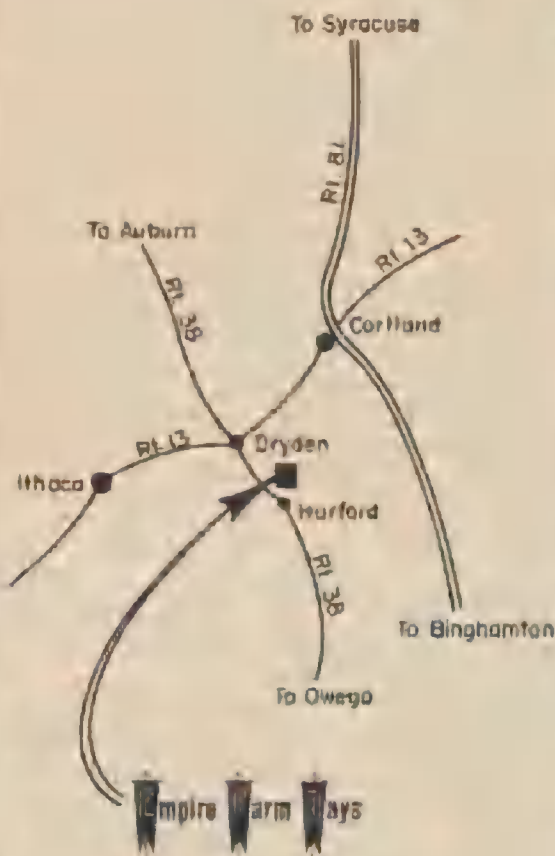
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Horse judging contest

THE February, 1972 issue of AMERICAN AGRICULTURIST published 5 classes, and invited readers to participate in a pictorial horse judging contest. There were 4,000 entries, and 416 of them scored 210 or more (250 is a perfect score).

The cutoff date for entries was announced as April 15, 1972. A number of entries were postmarked after midnight of that date, and therefore were not considered for award competition.

Winners (those scoring 210 or more) are listed here:

CONNECTICUT

Karen Anderson, Lakeside
Candace Bailey, Enfield
Laura Baldyga, North Haven
Susan Barkan, Branford
Lyda Coassin, Milford
Pat Congdon, Middletown
Elizabeth Couch, Coventry
Lorrie Davies, Milford
Sarah Dayton, North Haven
Linda DiNardo, Milford
Leslie Dolan, Branford
Lucie Gurreri, Lebanon
Sharon Egan, Bridgewater
Carol Leursh, Branford
Polly MacMullen, Clinton
Pat Magness, Guilford
Kathy McGinnis, Milford
Cindy Miller, North Haven
Patricia Moshanko, Milford
Debby Ponco, North Haven
Mrs. Richard Porter, Durham
Pamela Priest, Orange
Joseph Pucillo, Jr., Orange
Diane Reynolds, Madison
Beth Rose, Guilford
Gillian Rose, Guilford
Marc Savard, Storrs
Jennifer Smalley, Branford
Lonnie Smith, Southbury
Cyndy Steinkamp, Portland
Charles Stone, Rockville
Cathy Suchy, North Haven
Barbara Tirrell, Stonington
Linda Tomel, Colchester
Susan Valley, Branford
Diane Washburn, New Milford
Nancy Watrous, Hamden
Judith Wheeler, Stonington
Patricia White, Coventry
Judy Williams, Milford
Scott Wilson, Milford
Susan Wright, Killingworth
Joanne Yankura, Branford
Patty Young, Storrs

MAINE

Kathren Albert, Madawaska
Waldron Babbidge, Washburn
Mrs. Jacqueline Dunbar, Bucksport
Brenda English, Monroe
Luann Wasson, Bucksport

MARYLAND

Melani Abbott, Finksburg
Mary Alice Albrittain, LaPlata
Mary Ann Allen, Cumberland
Gina Balardo, Camp Springs
Andrea Beck, Glenarm
Beverly Budnick, Joppa

Kathy Clark, Oxon Hill
Karen Coffland, Baltimore
Kim Freeman, White Plains
Terry Freeman, White Plains
Joni Frye, Ridgely
JoAnn Gough, Leonardtown
Susan Gulig, Camp Springs
Page Hamilton, Pomfret
Karen Hart, Lutherville
Wanda Hughes, Annapolis
Tammie Knopp, Severn
Kathy McKim, Glenarm
Donna Mona, Camp Springs
Kate O'Farrell, Westminster
Cherie Ort, LaVale
Robert B. Owen, Davidsonville
Monica Prahe, Annapolis
Staci Rank, Cumberland
Deane Riddle, Hopewell
Lisa Sheirer, LaVale
Susan Diane Smallwood, Pomfret
Vicky Smallwood, Pomfret
Margaret Straub, Pomfret
Mrs. Jane Strohm, White Plains
Julie Timchula, Baltimore
Chris True, Cumberland
Sandy Tucker, Oxon Hill
Sandy Turnbaugh, Westminster
Susie Wheeler, Linthicum
Kathryn Willey, California
Joan Wilson, Adelphi

MASSACHUSETTS

Barbara Ann Archer, Marion
Donna Bean, Montague
Thomas J. Camandona, Middleboro
Carrie Chickering, South Deerfield
Barbara Chiesa, Lexington
Ronald Jay Clausen, Melrose
Andrea Dacko, Mattapan
Bobbi Gynan, Duxbury
Diane D. Kallio, New Salem
Jackie Letendre, Middleboro
Laura Moore, Easthampton
Carol Ogonowski, Dracut
Judith Suhl, Montague
Sue Taft, Uxbridge

NEW HAMPSHIRE

Michael Andrew, Epping
Jarlene Beliveau, Bedford
Patricia Canepa, Manchester
Andrea Chickering, Walpole
Sally Ann Chickering, Westmoreland
Helen Dufresne, Suncook
Geoff Hodges, Concord
Donna Richards, Deerfield
Joyce Rowe, Unity
Jill Waterhouse, Conway
Jane H. Williams, Peterborough
Mrs. Sydney Williams, Peterborough

NEW JERSEY

Donna Bien, Colt's Neck
Linda Bowers, Mendham
Frances Buckno, Beverly
Ginny Clickner, Cranbury
Cecelia Daugherty, Dividing Creek
Kathy Hellyer, Gladstone
Linda Krotje, Newton
Carol L. Lodge, Pedricktown
Denise Quick, South Branch
Peggy Zwawak, New Egypt

NEW YORK

Susan Allen, Pleasant Valley
Diane Aleynick, Verona
Jeanne Appling, Shushan
Renee Audette, Rhinebeck

Eugenia Avery, East Meredith
Robert Avery, East Meredith

B

Patricia Banghart, Schenectady
Kevin Banks, Ithaca
Marcia Barinaga, Schenectady
Barb Beetow, Springville
Chris Beetow, Springville
Susan Bell, Orchard Park
Mary Bochino, Baldwinsville
James Boshart, Springville
Robin Brady, Schenectady
Virginia Brady, Schenectady
Elaine Britting, Eden
Carole Britton, Williamstown
Kathy Brocksopp, Holley
Stephen Brown, Frankfort
Virginia Brown, South Plymouth
Kristine Brozyna, Schenectady
Justine Burnash, Adams Center
Carol Butler, Middleburgh
Mary Jane Burton, Malone

C

Catherine Campbell, Oneida
Mary Carpenter, Chittenango
Ann Carter, Wappingers Falls
Tami Cartwright, Bliss
Linda Chambers, Troy
Michael Chambers, Unadilla
June Chapell, Byron
Kenneth Clark, Hancock
Michellene Coffey, Hamburg
Rich Cole, Red Hook
Thom Cole, Red Hook
Carol Comerel, Ithaca
Susan Connor, Poughquag
Elaine Cordier, Rhinebeck
Claudia Craig, Orchard Park
Sharon Crispell, Slaterville Springs
Robert Cross, Castleton

D

Robin Nancy Davis, Olive Bridge
Kareen E. Deal, Vernon Center
Donald R. Dechow, Cattaraugus
David Dedrick, Belfast
Mary Dedrick, Belfast
Mrs. Robert DeForest, Newark Valley
Robin Dersam, Bliss
Debbie Deutl, Schenectady
Janet DiNitto, Washington Mills
Sue Dollmann, Orchard Park
Deborah Donaghey, Syracuse
Susan Downes, Cortland
Cindy Duquette, Plattsburgh
Wilma Dunn, Friendship

E

Kim Emanuel, Richmondville
Cindy Embling, Castile

F

JoAnn Fancher, Cobleskill
Mrs. John Fatcheric, Syracuse
Madeline Felt, Brewerton
James Felton, West Chazy
Mrs. Nancy FitzMaurice, Wolcott
Mrs. Beverley Fox, Hubbardsville
Eileen Frazier, Bliss
Marianne Freeman, Hilton
Rhonda Fratus, Bliss
Diane Freisitzer, Pleasant Valley

G

Gena Gale, Gouverneur
Laurel Gascoyne, Tonawanda
Mary Gilbert, Kennedy
Laura Gilmore, Port Byron
Peggy A. Gilmore, Port Byron
Cynthia Gray, Kendall
Susan Gridley, Delanson
Barbara Guenther, Alfred

H

Ellen Haag, Bainbridge
Kim Hammond, Port Jervis
Toni Hanna, Utica
Kay Harrington, Mayville
Linda Harrison, Oxford
Susan Hartridge, Lebanon
Guy Haskins, Castile
Leigh Hawley, Clifton Springs
Chris Havens, Ogdensburg
Sue Hayton, Stanley
Gloria Hickson, McDonough
Mrs. C. Hinterberger, East Aurora
Gail E. Hinterberger, East Aurora
Gene Hinterberger, East Aurora
Patti Holley, Clinton Corners
Shirley Hojuoski, Bath
Dave Horton, Rhinebeck
Kathleen Hoyt, Wallkill
Joanne Hughes, Cortland
Marilyn Hutchings, Cape Vincent

J

Janet Jenkins, Camillus
Joni Jenkins, Camillus
Ronald Jones, Port Byron

K

Kenneth Kasprzak, Brooktondale

Millie Kasprzycki, Lewiston
Carol Keller, Warsaw
Carl Ketchum, Bliss
Kelly Ketchum, Bliss
J. R. Kipp, Rome
Mrs. J. R. Kipp, Rome
Denise Knight, Springville
Helen Kochon, Rome
Sandra Kozdra, Turin
April Kuntze, Schoharie
Erhard Kuntze, Schoharie
Terry Kuras, Canandaigua
Margaret Ann Kuss, Fabius
Steven Kuss, Fabius
Liz Kusse, Conesus

L

Lisa Lane, Turin
Jeffrey M. Launer, Cobleskill
Debbie LaValle, Hornell
Mark Leitzan, West Falls
Kathy Libby, New Woodstock
Linda Lincoln, Cato
Sheila Lindquist, Cobleskill
Sharon Littlefield, Watertown
Peggy Livingston, Sloansville
Marietta Lloyd, Lima
Robin Lohnes, Schaghticoke
Karen Lootens, Newark
Dawn Loper, Bath
Nancy J. Luce, Riverhead
Donna Lyons, Pulaski

M

Lynn MacLaury, Harpersfield
Margaret Mappes, Auburn
Corey Martin, Auburn
Lisa Mason, Homer
Corena Masterpaul, Homer
Maria Matthes, Ozone Park
Sue McCann, Auburn
Sue McComb, Port Jervis
Wendy Meekins, Bemus Point
Diane Mehm, Poughkeepsie
Sarah Meixell, Trumansburg
Carol Merchant, Cape Vincent
Bonnie Mersinger, Millbrook
Patty Michel, Holcomb
Chris Mierek, Westernville
Elizabeth Millard, Woodville
Joan Miller, Rome
Joyce Miller, Cattaraugus
Keith Miller, Cattaraugus
Tammay Lynn Miller, Lockport
Patti Mitchell, Pleasantville
Barbara C. Moore, Colden
Billy Lee Moore, Oxford
David Moore, Oxford
Deborah Moore, Oxford
Marion Moore, Oxford
Laura Morrissey, Rhinebeck
Thomas Mothersell, Bath
Kathy Mullarney, North Bangor
Kathie Muller, Rhinebeck

N

Jolene Nagel, Panama

O

Susie Oleniacz, Eden
Robert T. Olsen, Falconer
Robert Olsen, Jr., Falconer

(Continued on page 26)

TOP SCORES

The 10 contestants with top scores, each of whom received a special trophy, are as follows:

Waldron Babbidge
Washburn, Maine
Donna Bien
Colt's Neck, New Jersey
Stephen Brown
Frankfort, New York
Linda Harrison
Oxford, New York
Lore Homer
Oreland, Pennsylvania
Laura Morrissey
Rhinebeck, New York
Karen Wagner
Newtown, Pennsylvania
Pamela Wilkins
Cortland, New York
Sally Williams
Rhinebeck, New York
Kris Yorkey
Webster, New York

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HI-PRODUCTION LAYERS. "Rugged as a Mule" white egg hybrids and brown egg hybrids that live, lay and pay. Also top notch White Leghorns and Buff Sex Links and Broadbreasted Cornish meatmaker cross. Free catalog. Noli Farms, Kleinfeltersville, Penna. 17039.

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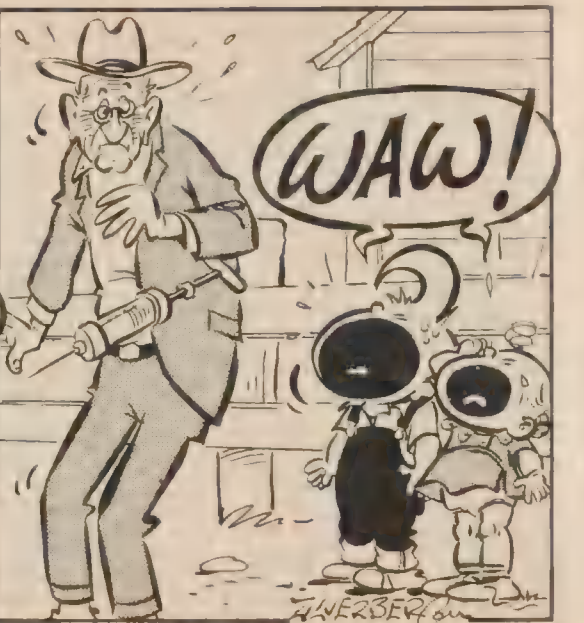
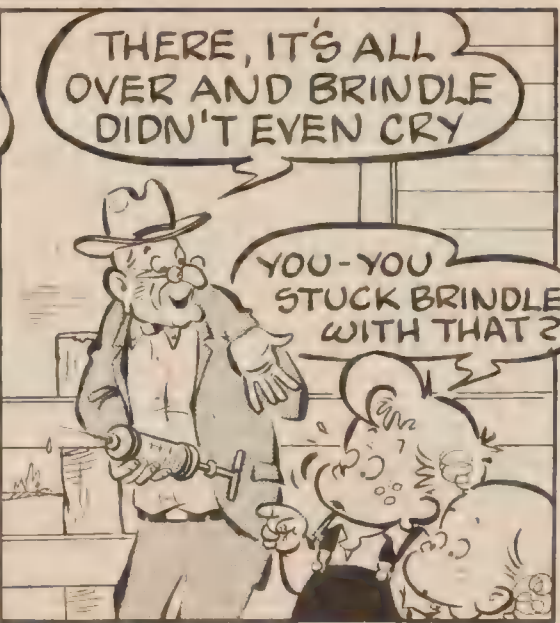
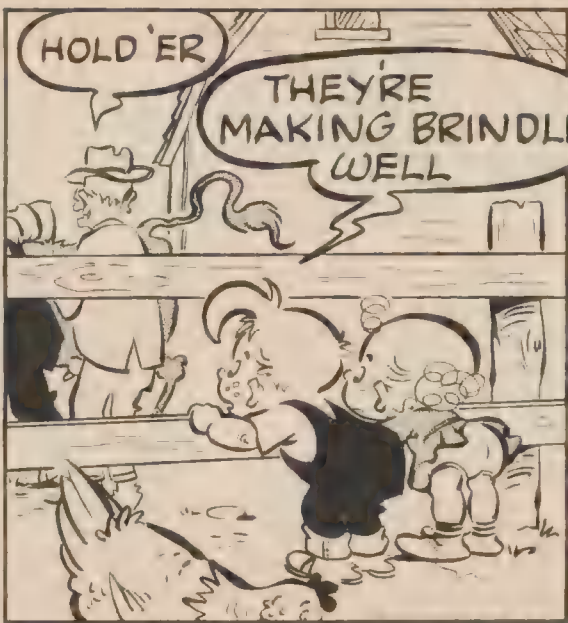
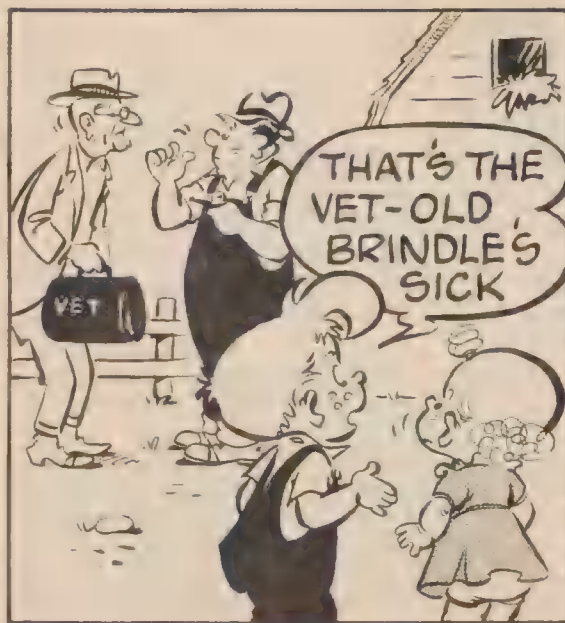
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Many factors were considered in the evaluation of the new milker but foremost among them was its contribution to better cow milking.

The milking unit is similar in appearance to the standard Surge Breaker Cup. It is governed by a solid state electronic control. Individual electrodes sense the milk flow from each teat and when milk flow ceases the low voltage circuit is broken, triggering teat cup removal. Actual removal is accomplished when the teat cup is mechanically pulled downward, shutting off vacuum at the inflation stem. Indicator

lights let the operator check the status of each unit at a glance.

Field Evaluation

Beginning in 1970, nine dairies, having a variety of parlor designs and herd sizes started using the new Surge QTO System in their daily milking operation. 62,427 cow milkings were monitored by Babson Bros. Co. personnel and 160,000 individual quarter timings were made. Cow flow thru the parlor and operator efficiency were evaluated.

Mastitis evaluations were made at a number of the test installations. At two dairies, noted dairy research scientists conducted concurrent udder health studies.

Dairymen who tested the new Surge QTO milker rate its performance

Bryncoed Farms—Pennsylvania

Jim Shaw, Herd Manager at Bryncoed Farms, near Chester Springs wants men and equipment that are cow-oriented. He is building a reputation for the 350 cow Registered Holstein herd and while he needs efficiency, his prime concern is good cow milking. After a year he has found the Surge QTO milker has given him both. He is averaging about 50 cows per man per hour in the double three individual stall parlor with automatic preps. Shaw notes, "We are bringing contented cows into the parlor and we are getting all the milk they have."

Wilson Rucks—Florida

"This past year has been the most satisfying and pleasant year I have ever had in the dairy business," says Wilson Rucks of Okeechobee. "My two biggest problems were labor and mastitis. The new milker has helped solve these. We haven't had any personnel changes in the last eight months and we are treating 75% fewer animals for mastitis than before. Milk production jumped a half-gallon per cow per day on our herd of 650 cows. I can see where we can continue to get even more milk from each cow in the herd. We want to increase production by a gallon per cow per day in the next two years."

Robert Bengen—Washington

"There is no doubt that the QTO's have helped udder health," says Dick Bengen of Everson, Washington. Dick, his brother Jon, brother-in-law Bob Ortega, and his father Robert have started milking their 80 cow herd three times a day to increase per cow production while they undertake further herd expansion.

"Leucocyte counts have dropped to half the former level," Dick continues. "This has to have an effect on increasing a cow's long term production." Robert Bengen feels the new QTO milker has additional value in their dairy operation. With three different operators the cows would experience variability in routine, but with the Surge QTO they are milked the same.

NDN Farms—Wisconsin

Wayne Neu heads up the three man team that merged to form NDN Farms. Each was milking a small herd with bucket milkers but decided to join forces and started building the new dairy operation in 1970. Now they are milking 165 cows in their Surge Double Six Sawtooth Herringbone Parlor with group prep-stalls. While milking is normally a 2-man job, Surge QTO's enable one man to milk the herd. When asked to evaluate the system, Wayne Neu stated, "It's the only parlor arrangement I am aware of where one man can milk as high as 70 cows per hour without having to worry about over-milking."



Jim Shaw—Bryncoed Farms



Wilson Rucks

Research Report provides detailed milking data

The new Surge QTO research report includes comments and information from dairymen who have tested the unit for more than a year. It cites actual data on cow flow, udder health and operational capability when used in conjunction with other parlor equipment such as crowd gates, prep stalls, power gates and automatic feeding equipment. Udder health data gathered by noted mastitis researchers is also included.

The new Surge QTO milker is presently available in limited quantities. To get all the facts, write for the Surge QTO Research Report.



Dick Bengen



Jim Dukelow, Tom Neu, Wayne Neu—NDN Farms

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Debby Patchett, Baldwinsville
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Renee Penla, Grand Island
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George Powers, Scotia
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Mrs. Arlene Stoltz, Oswego
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Bill Sullivan, Gilbertsville
Ralph V. Sundam, Port Byron

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Kristie Terk, Howes Cave
Cheryl Trutt, Poughkeepsie
Mary Ellen Turner, Auburn
Nancy Turner, Trumansburg
Debbie Tuttle, Endwell

V

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Denise VanPoortvliet, Cassadaga
Susan Veith, Suffern
Margaret Very, Machias
Clarke Vesty, Brockport
Dwight Vesty, Brockport
Pam Vetter, Strykersville

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Linda Wager, Shushan
Dale Waite, Salem
Laurie Weber, Boston
Mike Weber, Boston
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Darryl Wiltse, LaGrangeville
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Mary Wright, Rhinebeck
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Karen Homer, Oreland
Lore Homer, Oreland
Jody Hopkins, Tioga
Barbara Kensing, Doylestown
Marie Kohn, Wellsboro
Erin McCarty, Port Washington
Joan McFarland, Oaks
Jan Nace, Quakertown
Judy Pennell, Perkasie
Rhonda Russell, Cooperstown
Annette Sanders, New Albany
Charles Simons, Langhorne
Nancy Speidel, Halifax
Kathy Stoddard, Sugar Run
Karen Wagner, Newtown
Harold Wilson, Portersville
Margie Wilson, Portersville
Thelma Wilson, Portersville

VERMONT

Mary C. Bell, Shelburne
Carol Geshan, Shoreham
Mary Louise Merrill, Bennington
Harry Niles, Jr., Troy
Forrest Quinn, Woodstock
Howard Russell, Hinesburg
Mrs. Shelagh Smith, Bristol
Mrs. Robert Strang, Jericho
Joy Tisbert, Vergennes
Mrs. Deanna Wheeler, Lyndonville

The Song of the Lazy Farmer

Mirandy says she's mortified 'cause I have got my hammock tied right out in front where folks can see that I'm old-fashioned as can be. It's bad enough, she says, to lay



out there in public all the day, with out insisting that I cling to that old mid-Victorian swing. It's little wonder, says my spouse, that I'm often prone to grouse about the aching in my back, she wonders why it doesn't crack. She pesters me to let her buy a canvas chair for me to try; she claims that she might tolerate my loafing if 'twas up-to-date.

But I don't care what experts say or what slick magazines portray: no gadget yet devised by man will rest you like a hammock can. You float on air beneath the trees and sway so gently in the breeze; it's better than a feather bed, more like a fluffy cloud instead; if it don't curve exactly right, you loosen ropes or make 'em tight until your sacroiliac has just the right amount of slack. Those chairs Mirandy talks about look fancier, without a doubt, but beauty doesn't mean a thing when you are seeking rest, by jing.

American Agriculturist, June, 1972



1972 FAIR DATES

Information Supplied by
State Departments of Agriculture

NEW YORK

Ontario County Fair, Canandaigua	July 10-15
Trumansburg Fair	July 11-15
Allegany County Fair, Angelica	July 11-16
Afton Fair	July 16-22
Yates County Fair, Penn Yan	July 16-23
Lewis County Fair, Lowville	July 17-22
Jefferson County Fair, Watertown	July 23-29
Seneca County Fair, Waterloo	July 23-29
Chautauqua County Fair, Dunkirk	July 24-29
Saratoga County Fair, Ballston Spa	July 24-30
Hemlock Lake Fair, Hemlock	July 25-29
Madison County Fair, Brookfield	July 26-30
Onondaga County Youth Fair, Syracuse	July 22-23
Clinton County Fair, Plattsburgh	July 28-Aug. 2
Orange County Fair, Middletown	July 29-Aug. 5
Broome County Fair, Whitney Point	July 30-Aug. 5
Cattaraugus County Fair, Little Valley	July 30-Aug. 5
Oneida County Fair, Boonville	July 31-Aug. 5
Otsego County Fair, Morris Caledonia Fair	July 31-Aug. 5 Aug. 1-5
Tompkins County Fair, Ithaca	Aug. 1-5
Greene County Youth Fair, Durham	Aug. 2-4
Orleans County Youth Fair, Albion	Aug. 2-5
Schuyler County Youth Fair, Watkins Glen	Aug. 3-5
Rockland County Youth Fair, New City	Aug. 4-6
Niagara County Youth Fair, Lockport	Aug. 7-10
Chenango County Fair, Norwich	Aug. 7-12
Genesee County Fair, Batavia	Aug. 7-12
St. Lawrence County Fair, Gouverneur	Aug. 7-12
Cortland County Youth Fair, Cortland	Aug. 7-12
Chemung County Fair, Horseheads	Aug. 7-13
Cayuga County Youth Fair, Auburn	Aug. 9-13
Warren County Youth Fair, Warrensburg	Aug. 11-13
Ulster County Fair, New Paltz	Aug. 11-13
Albany, Schenectady and Greene County Fair, Altamont	Aug. 14-19
Delaware County Fair, Walton	Aug. 14-19
Monroe County Fair, Henrietta	Aug. 14-20
Tioga County Fair, Owego	Aug. 14-20
Essex County Fair, Westport	Aug. 15-19
Oswego County Fair, Sandy Creek	Aug. 15-19
Dundee Fair	Aug. 16-19
Herkimer County Fair, Frankfort	Aug. 16-20
Sullivan County Youth Fair, Grahamsville	Aug. 18-19
Erie County Fair, Hamburg	Aug. 18-26
Wyoming County Fair, Pike	Aug. 20-26
Franklin County Fair, Malone	Aug. 20-27

Steuben County Fair, Bath	Aug. 21-27
Wayne County Fair, Palmyra	Aug. 21-26
Washington County Fair, Greenwich	Aug. 22-26
Dutchess County Fair, Rhinebeck	Aug. 22-27
Schoharie County Fair, Cobleskill	Aug. 22-27
Genesee Valley Breeders Fair, Avon	Aug. 26-27
New York State Fair, Syracuse	Aug. 29-Sept. 4
Montgomery County Fair, Fonda	Aug. 30-Sept. 4
Columbia County Fair, Chatham	Aug. 31-Sept. 4
Rensselaer County Fair, Schaghticoke	Aug. 31-Sept. 5
Nassau, Queens and Suffolk County Fair, Old Bethpage	Oct. 6-9

NEW JERSEY

Great Monmouth Fair, Freehold	June 28-July 2
Union County 4-H Youth Fair, Westfield	July 8-9
Cumberland County Fair, Millville	July 10-16
Bergen County 4-H Fair, Paramus	July 13-15
Burlington County Farm Fair, Lumberton	July 20-22
Cape May County 4-H Fair, Cape May Court House	July 20-22
Ocean County Fair, Lakewood	July 25-27
Gloucester County 4-H Fair, Mullica Hill	July 27-29
Passaic County 4-H Fair, Wayne	Aug. 3-5
Camden County 4-H Fair, Cherry Hill (tent.)	Aug. 3-5
Mercer County 4-H and Farmers Show, Trenton	Aug. 4-5
Sussex County Farm & Horse Show, Branchville	Aug. 7-12
Middlesex County Fair, East Brunswick Township	Aug. 8-12
Salem County Fair, Cowtown	Aug. 10-11

Atlantic County 4-H Fair, Mays Landing	Aug. 10-12
Somerset County 4-H Fair, Bridgewater Township	Aug. 16-18
Warren County Farmers Fair, Harmony	Aug. 16-19
Essex County 4-H Fair, Roseland	Aug. 18-19
Flemington Fair	Aug. 29-Sept. 4
New Jersey State Fair, Trenton	Sept. 8-17

CONNECTICUT

New London County 4-H Mall Exhibit, Norwichtown	June 27-28 July 14-16
North Stonington Fair	July 21-23
Marlborough Grange Fair	July 21-23
Pachaug Community Fair, Griswold	July 21-23
Connecticut State Grange Fair, Durham	July 28-30
New Haven County 4-H Fair, North Haven	Aug. 4-6
Fairfield County 4-H Fair, Bethel	Aug. 11-13
Lebanon Country Fair	Aug. 11-13
Coventry Town 4-H Fair	Aug. 12
Winchester Grange Fair, Winchester Center	Aug. 12
Litchfield County 4-H Fair, Goshen	Aug. 12-13
Hamburg Fair	Aug. 18-19
Preston City Fair	Aug. 18-19
New London County 4-H Fair, Lebanon	Aug. 19
Bridgewater Country Fair	Aug. 18-20
Tolland County 4-H Fair, Rockville	Aug. 18-20
Windham County 4-H Fair, South Woodstock	Aug. 18-20
Middlesex County 4-H Fair, Durham	Aug. 19-20
Fairfield Old Fashion Fair	Aug. 25-26
Brooklyn Fair	Aug. 25-27
Chester Fair	Aug. 25-27
Hartford County 4-H Fair, Windsor Locks	Aug. 25-27
Southington Grange Fair	Aug. 26-27
Cheshire Fair	Sept. 2-3
Goshen Fair	Sept. 2-4
Woodstock Fair, South Woodstock	Sept. 2-4
Haddam Neck Fair	Sept. 3-4
Ledyard Fair	Sept. 7-9
North Haven Fair	Sept. 7-10
Portland Agricultural Fair	Sept. 8-10
Wapping Fair, South Windsor	Sept. 8-10
Cherry Brook Grange Fair, North Canton	Sept. 9
Echo Grange Fair, Mansfield Center	Sept. 9
Wethersfield Grange Fair	Sept. 9
Bethlehem Fair	Sept. 9-10
Meriden Grange Fair	Sept. 15-16
Guilford Fair	Sept. 15-17
Hebron Harvest Fair	Sept. 15-17
Four Town Fair, Somers	Sept. 15-17
Eastern States Exposition, West Springfield, Mass.	Sept. 15-24
Granby Grange Fair	Sept. 16
Norwich Grange Fair, Norwichtown	Sept. 16
Prospect Grange Fair	Sept. 16
Rocky Hill Grange Fair	Sept. 16
Wallingford Grange Fair	Sept. 16
Terryville Country Fair	Sept. 16-17
Norfield Grange Fair, Weston	Sept. 17

MAINE

Pittston Fair, East Pittston	July 27-30 July 29-Aug. 5
Bangor Agricultural Fair	Aug. 5
Wesserunett Valley Fair, Athens	Aug. 7-12
Northern Maine Fair, Presque Isle	Aug. 10-13
Cochnewagan Fair, Monmouth	Aug. 10-13
North Penobscot Fair, Springfield	Aug. 12-19
Skowhegan State Fair	Aug. 21-26
Knox Fair, Union	Aug. 24-27
York County Fair, Acton	Aug. 24-27
Piscataquis Valley Fair, Dover-Foxcroft	Aug. 24-27
South Kennebec Fair, Windsor	Aug. 28-Sept. 4
Hancock County Fair, Blue Hill	Sept. 1-4
Litchfield Farmers' Club	Sept. 8-10
Central Maine Fair, Lewiston	Sept. 9-16
Oxford County Fair, Norway	Sept. 14-17
Franklin County Fair, Farmington	Sept. 18-23
New Portland Lions Club, North New Portland	Sept. 23-24
Cumberland Farmers' Club, Cumberland Center	Sept. 24-30
World's Fair, North Waterford	Sept. 28-30
West Oxford Fair, Fryeburg	Oct. 1-7
Sagadahoc Fair, Topsham	Oct. 9-14

NEW HAMPSHIRE

Stratham Fair	July 28-30
Cheshire Fair, Keene	Aug. 2-6
North Haverhill Fair	Aug. 4-6
Canaan Fair	Aug. 10-13
Cornish Fair	Aug. 18-19
Belknap County 4-H Fair, Laconia	Aug. 19-20
State Fair, Plymouth	Aug. 24-27
Hopkinton Fair, Contoocook	Sept. 1-4
Coos & Essex Fair, Lancaster	Sept. 1-4
Hillsboro County Fair, New Boston	Sept. 9-10
Rochester Fair	Sept. 15-23
Deerfield Fair	Sept. 28-Oct. 1
Sandwich Town & Grange Fair	Oct. 9

VERMONT

Vermont Dairy Festival, Enosburg Falls	June 3-4
Windsor County Field Day, Windsor	July 22
Lamoille County Field Day, Hyde Park	July 21-22
Bennington County Field Day, Sunderland	July 29
Connecticut Valley Fair, Bradford	July 28-30
Washington County Field Day, Waterbury	Aug. 5
Addison County Field Days, New Haven	Aug. 2-5
4-H State Dairy Day, Burlington	Aug. 15
Orleans County Fair, Barton	Aug. 16-20
Vermont Lumberjack Roundup, Killington	Aug. 18-19
Caledonia County Fair, Lyndonville	Aug. 24-27
Deerfield Valley Farmer's Day, Wilmington	Aug. 25-26
Champlain Valley Exposition, Essex Junction	Aug. 28-Sept. 2
Vermont State Fair, Rutland	Sept. 3-9
Guilford Fair	Sept. 6
World's Fair, Tunbridge	Sept. 14-17
Bondville Fair	Sept. 23-24

Pennsylvania and
Massachusetts Fairs
will be published
in July.

A watchdog named
Tootsie gets her daily
grooming from a
friend at the Rodney
Warren farm near
East Baldwin, Maine.
Photo: Harold War-
ren.





Gayway Farm Notes

by HAROLD HAWLEY

SHE AIN'T WHAT SHE USED TO BE!

It's not just the "ole gray mare" that's different. How about the pickup truck? The logical and obvious successor to the democrat wagon and the buckboard, the pickup truck has had its own evolutionary history. Bigger, better, more power and capacity are but a part of the story.

Not so many years back, in an effort to capture a piece of the non-farm, non-commercial market, some of the smaller pickups were glamorized. Appearances were altered so that from the front they looked like the family car. The ride was "softened" and comfort cabs were here. Some felt that the most essential feature of a pickup might suffer — that the "guts" might be sacrificed for style and comfort.

A new force entered the field, creating a need and a new market for pickups with even more inner strength. The camper or piggyback vacation home, as it increased in size, luxury, and weight, came to outgrow the capacity of a standard ½ or ¾-ton pickup.

Straightway to meet this new demand, a whole new breed of pickups or options for standard models hit the market. Heavier springs and helpers, new and better suspension systems, better brakes, heavier clutches, transmissions and rear ends, bigger and heavier tires became available along with options of power steering, air conditioning, and so on.

The farm pickup seems likely to be a better tool as a result of efforts to meet the recreational needs. Four-wheel drives are, of course, not new, yet it seems that the vacationing public has helped to bring about an improvement in the availability and quality of this feature.

Possibly the trademark of a farm pickup is the crumpled fender. When the family car gets a bit stove-in, it gets fixed... perhaps because the insurance money will fix it up. All too often, the pickup got mangled a bit right on the farm. It slid into a wall or post or into a machine in the snow or mud. Or someone creased it trying to push or pull it out of the many bad spots a pickup is asked to negotiate. At any rate, it's less apt to get a face-lifting following a little mishap, maybe because most farmers are reluctant to be without their truck for even a short time.

Along with the very real improvements that are coming to this vital farm tool, we might suggest a couple of other needed changes:

Heavier-gauge fenders and doors. Stronger and better door hinges and latches and handles to close the door.

A built-in hook or ring, front and rear, to fasten a chain for towing the truck or towing with it.

Down the road a ways, used pickup trucks may come to be a much more acceptable and plentiful item. When vacation users decide to trade pickups, their rigs may have some miles on them, but they won't have been misused in every conceivable way as was the pickup when a busy farmer or contractor finally gave up on it and traded.

ACE IN THE HOLE

As we plowed up and back across the fields this spring we got to thinking what would be the situation with corn growers if the corn blight threat had not been met. Just a year ago, you will recall, there was much concern as to how great the blight damage might be in 1971. Extra acreage was planted to assure enough corn to meet the needs.

How come we can plant seed just one year later with confidence that the blight threat is minimal? Had we been living at any other time in history... and possibly even now at most other spots on the globe... last year's concern would have become a reality and a nightmare. So what made the difference.

There probably are additional reasons, but the most obvious would seem to be the high level of technical, scientific knowledge and the fine research capabilities in this country. Private companies under pressure to come up with something for their customers responded with an all-out effort — the best from their geneticists and breeders, as well as extensive expenditures by the seed corn companies for hand detasseling.

Add to this the awesome array of talent in the colleges and experiment

stations across the land. With the USDA also in on the act, this was a united frontal attack by the best-trained men and women in the various disciplines related to this problem.

It's virtually impossible to imagine the total input that went into the solution, or the disaster that would have visited this country if no solution had been forthcoming.

Possibly the greatest strategic reserve this or any country could possibly have to assure its citizens of a continuing food supply at reasonable prices is this pool of trained people who can bring to bear so much expertise toward the solution of the problems confronting farmers in their efforts to grow the crops and livestock to feed the millions dependent on them. Couple this with a well-developed system of information dissemination to a fairly sophisticated group of farmers and ranchers and you have a team unequalled throughout history in its ability to "get the job done."

Ever-normal granaries and strategic reserves may have more political importance, but when it comes to really assuring a food supply I'll put my money on the resourcefulness, flexibility and knowledge of this team operating in a competitive system to keep hunger a long arm's length away.

WHO'S BAILING OUT WHOM?

It's interesting to note that the Northeast is mostly doing a pretty good job of putting up money to promote its dairy products. Likewise, milk production in the Northeast is holding about steady, so if extra promotional effort "takes" at all we shouldn't be in bad shape.

Wisconsin dairymen last year turned down a referendum to make promotion a mandatory thing. There are exceptions on individual markets, but much of the rest of the country has yet to get harnessed to do a real dairy promotion job.

Maybe they haven't heard the figures we heard the other night. The statement was made that the consumption of beer and soft drinks in this country averages out at 40 gallons per year for every man, woman and child. Whether these

figures are precise or not, no one will deny that advertising has played a significant role in the development of a market for these items.

Increased milk production has occurred on the West Coast and in the Rocky Mountain states, as well as in some of the states in the South and Southeast, and in Wisconsin and Indiana.

It's naturally a lot more difficult to get enthusiastic about any form of supply management when the increased supplies are in other parts of the country. A nationwide production control program would be tough enough to sell even if all areas were showing production increases. When many areas are keeping production constant and are going into a good milk promotion effort, it makes it even tougher to generate any enthusiasm.

FERTILIZER — WHEN AND WHERE?

This year, we've tried three methods of feeding our corn plants. Using basic bulk ingredients, we spread all but about 200 pounds of the total on some fields. Last fall, on some other fields, we spread the phosphorus and potash and will side-dress with anhydrous ammonia to get the nitrogen.

Again, 200 pounds per acre of pop-up fertilizer were put on with the planter. A third method was to spray on liquid N (and atrazine) ahead of plowing while also spreading dry phosphorus and potash and then applying 200 pounds of 12-24-12 through the planter.

Spraying on the N and atrazine was a natural in one field where we wanted to use a split application of atrazine. The cost of the liquid N was slightly higher than the dry, and the anhydrous was the cheapest source of all. We hope to learn a little again this year and maybe will be ready to pick a best way for next year.

EVERYTHING IN ITS PLACE

When we first started farming, we committed a most unforgivable act. There was a terrible mess, we thought, of old horse and hand tools, harnesses, wagons, sleighs, etc. It was junk, we said, and we'll never use it, so we burned it. We've regretted it many times!

Now folks in the area have bought a building in the village and are accumulating what promises to be quite a collection of early Americana. Old pictures of people and places and things in this and surrounding communities, as well as old letters, keep popping up to tell something more about yesteryear. The stuff seems to come out of the woodwork; almost every day someone contributes an item which will be better off in the museum than in an attic, shed, or cellar.

We certainly wish a lot of the old "junk" we burned could have been a part of this collection. It is just amazing to find that such a wide variety of people, both young and old, are interested not only in the items but in the early history of the place called home. Better be warned, there's no such thing as being "a little hooked" on a project like this!



Gayway farm has its share of rocks. Harold Hawley handles a rig designed by son Bruce that eases back-strain in picking up boulders... a winch and pulley arrangement that can swing a hefty rock up on the frame of the disk, thence to some nearby gully.

SERVICE BUREAU

by M. A. Parsons

TOO LATE SCHMART!

The unscrupulous, itinerant workmen, who roam the countryside every summer, doing all kinds of home improvement (?) and repair work, are with us again. These itinerants, usually driving neat pickup trucks, sometimes with out-of-state license plates, offer to repair and paint roofs and chimneys, resurface driveways, or install lightning-protection systems.

Many times they claim they have just finished a job in the neighborhood and have enough materials left over for another job, so they can give you a bargain rate. They often give guarantees that paint or resurfacing material will last for six or seven years but, by the time the first rain has washed away the material, the men who did the work are long gone . . . and their guarantee is worthless.

Returned

Early in April, we heard that the "gypsies" were already back and operating in central New York State and northern Pennsylvania, but it was too late to get a warning in our May issue. At that time, they seemed to be concentrating mostly on lightning rod installations.

One of our lightning-protection advertisers has had numerous calls to replace these bad installations, which had cost the owners a lot of money for no protection, and for which they had to pay again to get it done right. In fact, when a sloppy installation is made, it is worse than nothing at all, because it gives the buyer a false sense of security. Most of these "gypsy" jobs are incomplete, slipshod, and done in a hurry.

If you are approached by lightning-protection salesmen, ask for their credentials . . . a card or something to show what company they represent; and check their truck . . . it should have a company name on it. Ask for references. Tell them you want time to check. Only the "gypsies" are in a hurry; a reliable company will not object to your contacting people for whom they have done installations.

A "no-rush" attitude also applies to any home improvement or repair work. Don't let anyone force a decision on you by saying they have to do the job while they're in the neighborhood.

We would be interested to hear from any of our readers who have recently had any experience with these itinerant workmen.

CAN YOU HELP?

John Vitomski, Iron Ore Road, Englishtown, New Jersey 07726 would like to obtain a copy of the book "The Study of Palmistry" by Comte C. de Saint-Germain.

...

Mrs. Jasper Richards, 17 Center Street, Palatine Bridge, New York 13428 would like a copy of "Trappers of New York State"

American Agriculturist, June, 1972

Accident and Sickness Protection!

Local agent Len DeFrancisco of Falconer, N.Y. (P.O. Box 64) brings help from North American.

Developing a kidney problem back in 1969, Sherman Maring of Ashville, N.Y. had to make repeated trips to the hospital. Eventually, he underwent a kidney transplant operation. When taking out the Hospital and Home Recuperating income policy through Mr. DeFrancisco in 1966 Mr. Maring had no idea he would be in need of the protection as he did. Here is how the policy has paid him:



1969

5 weeks 5 days Hospital \$ 571.44
11 weeks 3 days Recuperation 1142.88 \$1714.32

1970

2 weeks 4 days Hospital \$ 257.16
5 weeks 1 day Recuperation 514.31 771.47

1971

5 weeks Hospital \$ 500.00
10 weeks Recuperation 1000.00 1500.00
Total \$3985.79

\$1220.87 to Donald Beers of Westfield, N.Y.

It happened so suddenly — while cleaning out a manure spreader, as he had done many times before, his clothes accidentally caught on the power take-off shaft. Luckily for him no broken bones but he did suffer burns on the right arm and multiple contusions and abrasions of his abdomen and back. Six days in the hospital and seven more weeks laid up at home brought on big bills. His combination of North American policies paid medical expenses and weekly income benefits in the amount of \$1220.87. He has carried this protection since 1960.



OTHER CLAIMS PAID — — — a friend's name may be in this list.

Lilla Knaggs, Afton, N.Y. \$ 745.71	Francis Schwandy, Castorland, N.Y. \$ 429.36	Anthony Zambriski, Aquebogue, N.Y. \$ 323.80
Slipped in pasture—broke ankle	Chemicals blew up—inj. eye	Using table saw—cut thumb
William Curry, Fillmore, N.Y. 282.86	Ronald L. Thompson, Hunt, N.Y. 171.40	Harriette Wilson, Berkshire, N.Y. 1135.75
Caught in steering wheel—broke thumb	Stone thrown by spreader—head injury	Hit by hay bale—broke ribs
Eula C. McBride, Johnson City, N.Y. 180.00	Jay Reed, Lebanon, N.Y. 272.85	Monroe M. House, Spencer, N.Y. 1463.37
Hit table—broke finger	Tractor tank exploded—burned face	Struck by ensilage fork—inj. hand
Wilfred R. Jones, East Otto, N.Y. 319.85	Elaine R. Hacker, Rush, N.Y. 335.00	Ruth Simmons, Trumansburg, N.Y. 200.20
Playing baseball—broke ankle	Fell down stairs—injured foot	Caught in sliding door—broke arm
Thomas McElroy, Freedom, N.Y. 1423.56	Karl Lottmann, Canajoharie, N.Y. 152.13	David M. Dalton, Ontario, N.Y. 348.10
Fell from tractor—broke leg	Tripped over hay bale—inj. shoulder	Auto accident—inj. arm, knee
Helen Anderson, Port Byron, N.Y. 640.00	John C. Sax, Wilson, N.Y. 334.97	Darwin Reiner, Attica, N.Y. 184.30
Truck accident—inj. back, ribs	Slipped on stepladder—broke arm	Hit by post maul—broke finger
Homer Foster, Jr., Horseheads, N.Y. 1311.67	Clifford E. Kitchen, Vernon Center, N.Y. 231.43	Carl W. Hetzel, Liberty, Pa. 818.08
Hit on wagon—inj. leg	Caught between wagons—broke collarbone	Window slipped—cut hand
Clifford J. Duquette, Cadyville, N.Y. 204.19	Fred C. Bowden, Jordan, N.Y. 155.70	Kenneth Mitchell, Corry, Pa. 142.04
Caught in stall curbing—inj. knee	Pushed by cow—injured knee	Clipping cows—cut hand
Clifford L. Royce, Harford Mills, N.Y. 1542.14	Stewart Metsinger, Holcomb, N.Y. 183.57	Herbert Kymer, Sussex, N.J. 405.00
Hit by truck—broke arm, ribs	Caught in auger—injured foot	Kicked by cow—injured hand
Albert Zurbrugg, Marathon, N.Y. 857.72	Dudley A. Mathes, Holley, N.Y. 620.00	Howard Emmens, Pemberton, N.J. 313.57
Wagon jackknifed—inj. back	Corn conveyor fell—inj. back	Fell from barn cleaner—broke arm
Philip Merrill, Delhi, N.Y. 984.01	Keith Armstrong, Richfield Springs, N.Y. 812.59	Pearl Pope, Vincentown, N.J. 1242.86
Fell on nail—inj. knee	Working in silo—inj. lung	Removing stick from mower—cut hand
Raymond J. Hoelscher, Eden, N.Y. 1620.00	Spencer E. Widrick, Newelton, N.Y. 135.00	Marjorie L. Marsh, Conway, Mass. 287.50
Kicked by cow—broke leg	Sawing wood—cut finger	Kicked by cow—inj. leg
Carroll B. Mitchell, Westport, N.Y. 754.28	Sherry L. Manchester, Sloanville, N.Y. 263.50	Clifford Plummer, Sr., S. Windham, Me. 510.10
Stepped on by horse—inj. leg	Thrown from horse—injured back	Starting loader—inj. finger
Laverne Shuknecht, Elba, N.Y. 230.38	Louis Meehan, Watkins Glen, N.Y. 201.42	Frank D. Adams, Charlestown, N.H. 120.20
Spread blade fell—injured hand	Fell off tractor—broke wrist	Truck tipped over—inj. shoulder
Leo K. Lachet, Poland, N.Y. 1122.85	Donald Baker, Cameron, N.Y. 240.80	Francis Bashaw, St. Albans, Vt. 1021.05
Heater exploded—burned hand, legs	Thrown from motorcycle—broke collarbone	Knocked down by cow—broke ribs
Dean Chartrand, Carthage, N.Y. 140.56	Edwin Peterson, Bath, N.Y. 178.00	Bernard J. Hoben, Enosburg Falls, Vt. 424.72
Coming off trampoline—broke foot		Kicked by cow—broke fingers
Loren V. Allen, Lowville, N.Y. 171.40		
Thrown by bull—inj. leg		

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SAVINGS BANK BUILDING

ITHACA, NEW YORK



Food prices

by Amos Kirby
New Jersey Editor

ALL this talk about "high" food prices may have a ray of sunshine for farmers. Protests at the retail market may result in the consumer taking a second look at prices the grower has been getting over the last 20 years.

During the past two decades, the consumer has paid little or no attention to what the grower has received for his crops. Not until meat prices hit their 1972 level was any thought given to the grower. Now...with some groups suggesting price controls on raw products...has the idea finally reached the consumer that farm prices are (with few exceptions) no higher than they were 20 years ago?

Secretary of Agriculture Earl Butz recently pointed out that the farm price of beef has reached the level that it was back in 1950-55!

SOYBEANS

If one can secure good soybean seed, this is a crop that can fill in for many who have reduced vegetable acreage. Seed supply is short and prices high. This could mean even higher market prices come harvest time.

Good news for soybean growers...with good management, yields are breaking through the 25-bushel average. A number of New Jersey growers came through in 1971 with yields of 40 bushels per acre, and one grower posted a figure of 48 bushels.

CORN BLIGHT

While Southern corn leaf blight may be a thing of the past, two other corn diseases will bear watching. The University of Delaware is warning growers to be on the lookout for maize dwarf mosaic and corn stunt.

They have been found in Maryland and Virginia. They can show up in Delaware this year. Mosaic first appears as yellow spots or streaks between veins of the youngest upper leaves. As the diseased leaves mature, they have a finely-stippled mottle or mosaic of dark and light green. Plants may be shorter and more spindly than normal.

A sign of corn stunt is a faint yellowish streaking in the youngest leaves. The yellowing increases as the plant matures. By the time the ears begin to form, the streaks are turning red.

Both diseases may be found on the same plant. At present, there is no evidence that the seed or the soil is involved in transmitting either disease.

The mosaic disease over-winters in Johnsongrass rhizomes. In the spring, aphids spread the virus by first feeding on infected Johnsongrass, and then on nearby young corn.

NEW TOMATO GRADES

When New Jersey tomato growers deliver their 1972 crop, they will find a new proposed system of grading in effect.

The big change will be centered on the color of the fruit. Instead of eye-testing to determine the grade, a colorimeter will be used in addition to the present system.

The colorimeter will determine the color of the fruit and give it a grade. It is a device that has been around for a number of years, and has proven satisfactory.

While the machine will determine the color and establish the grade, the old rules covering mold, decay, firmness, stems and other foreign matter will still apply.

This new system is being given a road test this year, and...based on

the results...it may be adopted as official by the USDA and put into effect in 1973. The system may sound a bit complicated, but actually it is much easier to fathom than an income-tax form!

Growers will find that...while the fruit will still be graded "A," "B" and cull...they will be paid for all of the usable portion of the tomato.

MEXICAN VEGETABLE DEAL

A mid-winter trip to Culican, Mexico, to visit the world's largest and most advanced vegetable-growing operation, gives an indication of what is going on outside the United States.

Culican is about 600 miles south of Nogales, Arizona, and grows more tomatoes, eggplants and peppers than probably any other part of the world.

The important thing to keep in mind is that competition from vegetables (and fruits) grown in South America and Australia, where land is cheaper and labor costs are low, is something to watch.

The shipping of 970 carloads of tomatoes in just one week into the U.S. via Nogales provides some idea of the size of the Culican winter vegetable deal. The total for a year is in excess of 20,000 carloads from December through May!

The Mexicans have the land, the capital, labor and a grading system that enables these growers to do an excellent job. The pay to workers this year has been \$2.90 per day...up from \$2.50 one year ago. The low labor cost enables the area to grow about 50,000 acres of tomatoes, all on stakes.

While in Nogales, I saw a truckload of tomatoes destined for New York, then to be sent by air-freight to Amsterdam, Holland. This is a distance of 6,000 miles...with half of it by truck.

Mexican growers are using American equipment, the latest fertilization and spraying practices, and their field operations are on a par with anything in the United States.

Through Laredo, Texas, the growers in East Mexico have shipped as many as 250 carloads of strawberries in one week! It is estimated that 90 percent of all the strawberry jam now consumed in the United States comes from Mexico.

MEET "ETHREL"

A promising new material to increase the yields of tomatoes grown for mechanical harvesting is being tried again in New Jersey. Ethrel applied as a liquid when 20 percent of the tomatoes are ripe will hold the fruit to develop an evenness of maturity so that more fruit is ready to harvest at the same time.

It has been tried experimentally for four years and has provided an increase in red-ripe tomatoes for processing, if applied at the proper time. It might be compared in some respects with Alar used in apple orchards to delay maturity. As with other new products, follow instructions carefully.

Growers who are interested should cooperate with the processor fieldman, or with the Extension Service.



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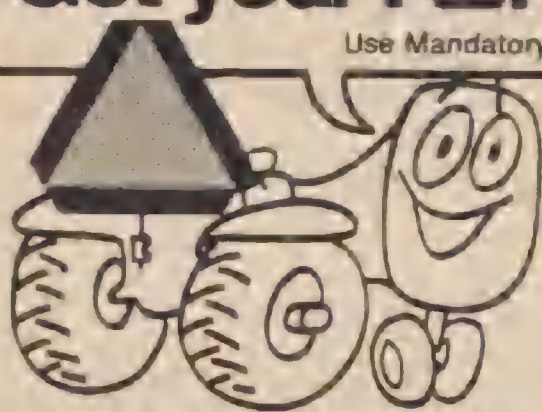
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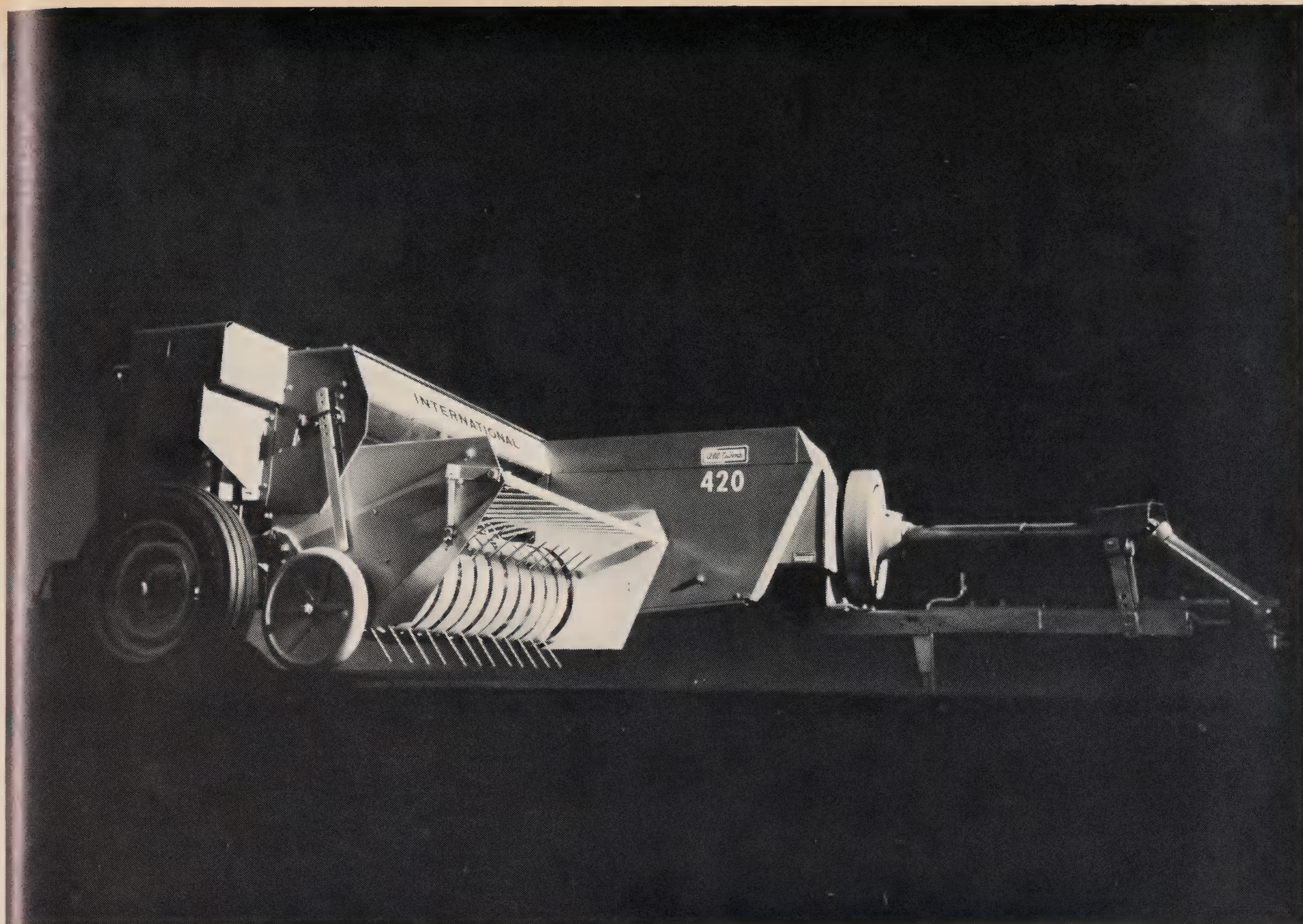
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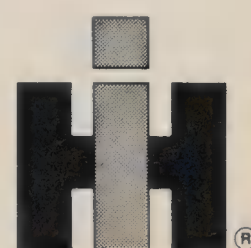
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OUR COVER

If you've ever traveled the NYS Thruway just east of Weedsport, New York, you've driven by the Nile Farm. Carlton Clements raises the flag in the picture. Photo: Joseph Albino



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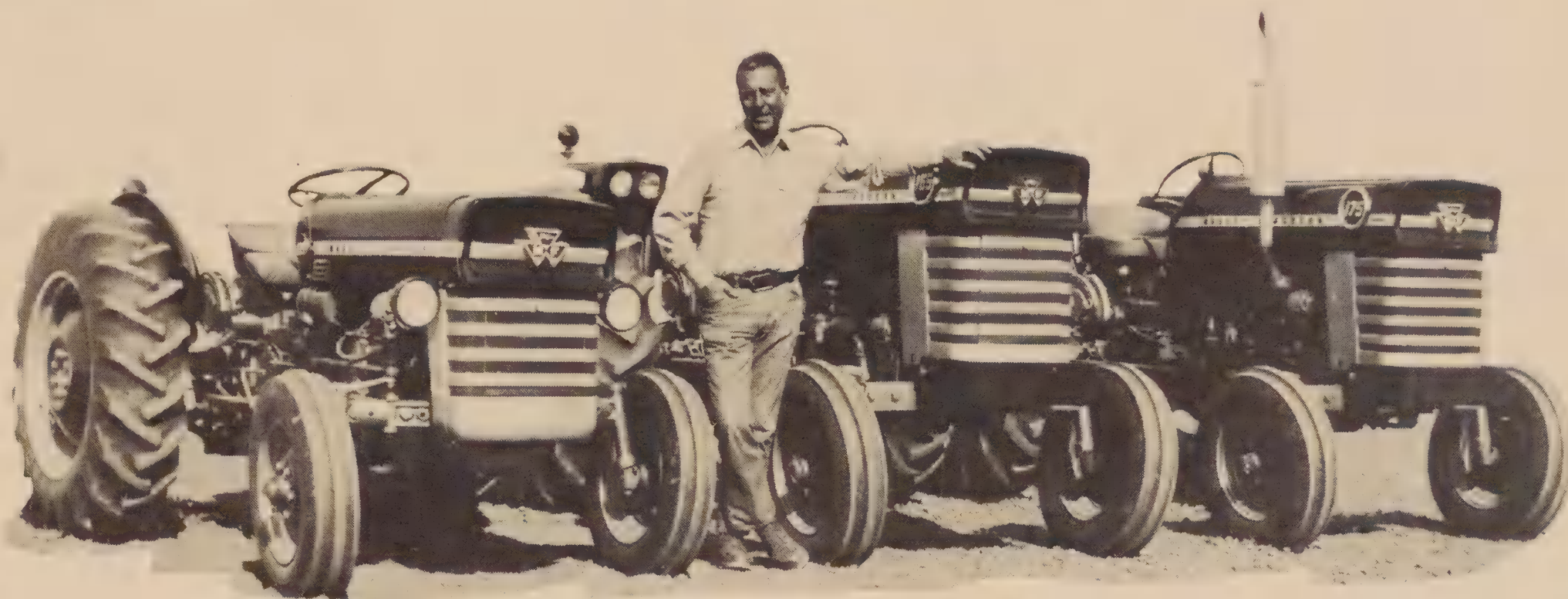
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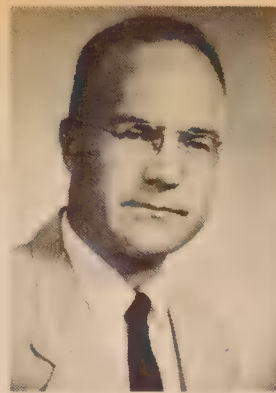
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EDITORIALS

by GORDON CONKLIN



MY COUNTRY, RIGHT AND WRONG

Got to visiting with a farmer not long ago as to why he flew a flag each day from a flagpole on the farmstead. I reminded him that in the eyes of some people, this marked him as either a "square" in terms of unfashionable life style, a "hawk" on Vietnam, or at the very least a nincompoop who doesn't know what's going on.

"Well," he replied, "a nation is a lot like a church . . . each has its share of users who **demand** much and **contribute** little. We Americans are so used to a large measure of freedom, and an even larger measure of affluence, that we don't appreciate what we have. Unfortunately, too few of us ever visit other countries where the contrast would make us stop and think.

"I fly the flag," he went on, "because I believe in America . . . I love my country. This doesn't mean that I agree with governmental policy all the time, but it means that I'm **for** these United States, and **for** the people who make up our nation. My son and I disagree at times, but I'm always **for** him as a person.

"The Good Book has a lot to say about love, and our young people talk a lot about love, too . . . and I think of the term as describing a commitment to the long-run best interests of someone or something. No matter how much a member of my family disappoints me, I cannot disown him . . . cannot reject him as a person . . . cannot bring myself to hate him. Every person I've ever known . . . including me . . . is a mixture of good and bad, of plus and minus.

"So it is with my country . . . I don't agree with all its international or domestic policies, but I consider myself a part of its negatives as well as its noble ideals. In my opinion, its pluses far outweigh its minuses. I try to correct its minuses, and to never lose sight of the pluses.

"Some folks," he concluded, "can't ever really love anything other than themselves . . . and so they refuse enduring commitments to constructive ideas, to demanding goals, to objectives requiring great sacrifice, or to their nation. The flag symbolizes our country at its best, and at its worst.

"Old Glory has an appropriate color combination . . . the white of purity, the scarlet of wrongdoing, and the blue of the heavens toward which we raise our tired spirits in search of renewed hope and purpose.

"I guess my motto couldn't be to support 'my country, right **or** wrong' . . . but rather to pledge my best effort on behalf of 'my country, right **and** wrong'."

VOTE OF CONFIDENCE

Some time ago, I commented that Oneida County, Wisconsin, was the first county in the United States to discontinue the work of the Extension Service within its boundaries. The Oneida County Board of Supervisors later put the question of reinstating extension work to a vote by county residents, and the vote was 5,578 in favor of that reinstatement, while 3,281 voted "no."

In New York State, county appropriating bodies have for many years generally **increased** the funds for Cooperative Extension Associations. For the fiscal year 1972, total statewide financial support from the counties **increased** by nearly five percent as compared to 1971.

However, there was wide variation . . . three counties **increased** money to Extension by 15 to 25 percent . . . 27 counties **up** by 5 to 14.9 percent . . . 13 counties **up** by 1 to 4.9 percent . . . 5 counties **down** up to 5 percent, and 2 counties **down** from 5 to 25 percent.

County support for the work of the Extension Service in the Empire State is nearly \$7.5 million annually, so each percent change is no small amount.

So . . . in spite of some major storms it's struggling to weather . . . the Extension Service remains a useful organization in the opinion of the majority of people. The organization's concept of **helping people to help themselves** is sound . . . its emphasis on the **constructive development of people** has timeless relevance . . . the **abundance** that Extension workers have helped create by extending the fruits of research to the people is envied the world over.

Hopefully, Extension will avoid becoming entangled in the educational fashions and social fads of the moment so that it can continue to be a constructive force by applying the principles that made it a great institution.

SAVE THE VAMPIRE

Over the years, I've observed with some amazement (and even amusement) the formation of groups to save the rattlesnake, the alligator, the coyote, and some other critters that haven't exactly gotten along famously with man . . . and vice versa. And I've found myself wondering whether the dinosaurs might still be around if early man had been as affluent as we are now, and therefore in a position to protect what he then considered a remorseless enemy.

Anyway, just wanted to alert everybody concerned that the Agency for International Development (AID) is kicking off a major program to put the kibosh on the vampire bat. This dreaded animal causes livestock losses estimated at \$250 million annually in Latin America alone . . . and spreads rabies to domestic animals and man during his blood-lapping activities.

Inasmuch as there are lots of folks protected by thousands of miles of geography from ever being **personally** exposed to the ravages of this symbol of the devil, I suspect some of 'em will want to take up the cudgel on its behalf.

Protestors may contact AID at the State Department in Washington, D. C.

OFFICE OF ECONOMIC ORDEAL

Again this year, some farmers will probably be harassed by legal service representatives of the federal Office of Economic Opportunity. Jack Gill, a grower in Ulster County, New York, described in detail his dismal experiences with the OEO at farm meetings last winter.

The pattern is for OEO legal beagles . . . financed by federal funds . . . to level charges of law violation against growers, allegedly on behalf of farm workers. Whether or not the charges have any foundation, regulatory agencies involved must investigate them. Before long, a seemingly endless procession of bureaucrats descends upon the farm from the county health department, state labor offices, federal labor representatives, social security people, internal revenue investigators, etc., etc.

Generally, no major infractions are found . . . but the farmer has been forced to use so much management time with the investigators that his business suffers. Occasionally, major

legal action **does** develop . . . and an individual farmer with comparatively limited resources finds himself pitted against Uncle Sam's deficit-financed juggernaut.

Some OEO activists consider it a holy calling to harass farmers in pursuit of the objective of eliminating the availability of seasonal labor, at least that portion of it once commonly referred to as migrant labor.

I wonder if the workers themselves are ever consulted?

BABY BUST

Amidst all the talk about the population explosion, a few figures from the U.S. Bureau of the Census have escaped the attention of most Americans.

Most of the child-bearing takes place in the 15-34 age range, and the number of U. S. citizens in this age span **increased** by 29 percent between 1960 and 1970. Furthermore, the 20-24 age category . . . the most fertile of all . . . increased in number by an unprecedented **52 percent** during that same period.

Surely, it's logical to presume that the number of Americans under five years of age must be soaring upward, right? Wrong . . . the fact is that there were more than three million fewer children in the preschool-age category from birth to four years of age in 1970 than there were in 1960. This is a decrease of **15.5 percent** during the decade. During the entire 120 years for which complete censuses have been taken, there has been nothing like this decrease.

Sure, **total** U. S. population is still growing because annual births continue to outnumber annual deaths by a substantial margin. But the rate of growth is sharply down from the early 60's.

Well, you ask, so what?

For one thing, this development is a negative factor in future milk sales . . . for youngsters traditionally consume more milk per capita than do older folks. Some types of breakfast cereals will also probably see less growth in market than had been hoped . . . in spite of all those TV commercials beamed to the reduced numbers of small fry.

On the positive side, we taxpayers can rejoice a bit that we won't have to continue shouldering the tax burdens of constant school construction . . . at least until social customs change again. Kindergarten classes are already smaller in many schools of the Northeast.

And maybe the fast-disappearing elbow room we now call "open space" won't really disappear as fast as some of the prophets of doom have been predicting!

PEOPLE KILL PEOPLE

An election year in 1972 will probably whip to new heights the debate over gun control. "Guns kill people" will be the battle cry of those seeking to confiscate firearms.

Baloney . . . guns do not kill people . . . **people** kill people! In all the history of the human race, more people have been killed by stones and knives than with anything else, but cobblestones and kitchen knives are not banned.

How come so many legislators cringe from the thought of heavy court sentences imposed on anyone convicted of attempting, or committing, a crime with the use of a firearm? Isn't it more logical to deal with the **person** using the gun, rather than attempting to eliminate the inanimate object that is merely a tool of the criminal?

Massive amounts of money are spent to enforce the laws forbidding possession of heroin . . . but you'll note great concern over its widespread use by those outside the law. Disarming the law-abiding would do the same . . . leaving the guns in the possession of those to whom the law means nothing anyway.

Food For The Spirit



by Robert L. Clingan

WE are living in an age of nostalgia. Music albums of the forties and fifties have substantial sale today. Apparently, many people like to put on the old records, hear the old songs, and imagine things are as they used to be. This is one reason for the appeal of Governor Wallace;

he suggests that much we had before could be restored.

When we are honest with ourselves, we know that we cannot turn the clock back. The pages torn from a calendar cannot be found and restored . . . even the calendar from which they were taken has been discarded.

In the title words of a contemporary writer, "You cannot go home again." Things will never be the same, no matter whom we elect for president, or what tunes we hear on a record player.

Our generation is living under conditions no other generation has ever experienced. No other people lived in a time such as ours, when the entire planet earth has become a "global village." No other people

have lived under the threat of nuclear annihilation of life on this earth. No other people have experienced the prosperity and affluence, recession and poverty, inflation and war, and a great hunger for world peace as have ours. No other people have seen the institutions of their common life questioned as much as ours. Many people have lost confidence in our schools, our government, our churches, and even the family as we have known it.

With these kind of problems facing us, nostalgia will not do. We must find new answers for ourselves, our society, and our world.

It is this kind of a challenge that will call forth the exercise of greatness that God has placed within us, and our world of men. The late Mark

Dawber of the Methodist Boards of National Missions once said that no one calls out the fire department because someone struck a match. The fire department is called when real fires are discovered. Our age has discovered real fires, and the total resources of church, community, nation, faith, and character are called upon to do their best work.

This is the spirit that will save the life of man upon this earth. Nostalgia will never do. We must open our lives to new ideas, new ways of doing things, and even some new values by which to live. Jesus extends to us the invitation He has always given those who could answer His call to pilgrimage and struggle, "Behold, I make all things new."

Dates to Remember

July 6 - Seedsmen's Day, Cornell University, Ithaca, N.Y.

July 10 - Annual Meeting New York-New England Apple Institute, Granite 2 Resort Hotel, Kerhonkson, N.Y.

July 15 - Maine Broiler Day, Belfast, Maine.

July 15 - NYS Angus Association Field Day, Sir William Farm, Hillsdale, N.Y.

July 21-23 - Potato Blossom Festival, Fort Fairfield, Maine.

July 22 - Annual Field Day NYS Ayrshire Club, Charles Burr Farm, Trumansburg, N.Y.

July 22 - Maine Christmas Tree Producers Field Meeting, Carleton Hodges Christmas Tree Farm, Cornville, Maine.

July 22 - New York Junior Hereford Association Field Day, Glenview Farms, Portville, N.Y.

July 25-31 - National Farm Safety Week.

July 26-29 - Annual Meeting American Dairy Science Association, Virginia Tech, Blacksburg, Va.

July 28-30 - Annual Reunion Pioneer Gas Engine Association, Firemen's Field, Fairville, N.Y.

July 29 - Summer Meeting New York Christmas Tree Growers Association, Stutzman Plantation, Hornell, N.Y.

July 29 - Maine Dairy Day, Fairgrounds, Windsor, Maine.

July 29 - Bean-hole Bean Festival, Fairgrounds, Oxford, Maine.

July 30-Aug. 2 - Annual Meeting American Society of Animal Science, Virginia Tech, Blacksburg, Va.

Aug. 4-5 - Northern New York Agricultural Historical Society Craft Fair, at Museum on Rt. 180, Stone Mills, N.Y.

Aug. 5 - NYS Junior Guernsey Meeting and Field Day, High Meadows Farm, Lafayette, N.Y.

Aug. 5 - Annual Sauerkraut Festival, Phelps, N.Y. If you've never had sauerkraut cake, here's your chance.

Aug. 8-10 - Empire Farm Days, Cornell Animal Science Teaching and Research Center, off Rt. 38, south of Dryden, N.Y.

Aug. 15-19 - Annual Beef Short-horn Show, Fairgrounds, Sandy Creek, N.Y.

Sept. 8-9 - Annual Hammond 4-H and FFA Fair, Fairgrounds, Hammond, N.Y.

The information contained herein is general in nature and is drawn from sources deemed to be reliable. Any application to a particular farming operation requires the advice of qualified experts and is subject to limitations of good management, weather and other conditions present at the individual location.



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Dorothy Kime enjoys working with calves. They're housed in a room separate from the dairy stable. Tile-drained gravel forming the floor helps keep them dry.



MANAGEMENT PLUS

Route 96A forms a giant elbow south of Geneva, New York, as it curves northward along Seneca Lake. In the middle of this elbow, East Lake Road takes off to the south . . . and just a short hike from the intersection mentioned is the farm operation of the Kime family.

Robert Kime and his wife, Dorothy, team up with their son, Edward, and his wife Barbara, as the mainstays of operating the outfit. Actually, though, there are four generations involved . . . for Bob's father still helps out occasionally, and Ed's four-year-old son is learning about cows and crops.

Specialized

In an age of specialization, the Kimes have understandably divided up responsibilities a bit, although everybody becomes involved with all types of the farm's enterprises at one time or another. Ed is primarily the field-crop man . . . no small task in the light of the 600 tillable acres involved, including 325 owned (the rest rented). Major items sold include hay, straw and grain (including 600 tons of corn annually). All hay and straw are baled in wire to enhance salability.

The Kimes are proud possessors of several trophies awarded by DeKalb AgResearch for their corn-growing abilities. For the 1971 crop year, Kime Farms received its trophy for a yield of 161.4 bushels of dried shelled corn per acre. Ed fertilizes corn with 300 pounds per acre of 10-20-20 in the planter . . . plus 100 pounds of nitrogen per acre in the form of anhydrous ammonia, sidedressed after corn is up.

Dairy Herd

Bob and Dorothy share primary responsibility for the dairy herd of 41 cows, plus about an equal number of young cattle. Milk isn't the only cash crop coming from the barn . . . this purebred herd has become widely known for excellence, and other dairymen are bidders for its offspring.

Just this year, a sire from the Kime herd . . . Kime-Farms Astronaut Lewie . . . was placed in AI service by Eastern Artificial Breeders. Another AI sire may be on the way, for Lewie's dam . . . Freebank Admiral Pabst Lou . . . is bred in a planned mating program to No-Na-Me Fond Mott (Select Sires).

Nothing fancy about the feeding

program . . . plenty of hay (the best available from 135 acres of this crop), corn silage (well-eared and high in net energy), and grain (14 to 15-percent protein). It works, though, as proven by the fact that the Kime herd walked off with top DHIC honors in Seneca County for the most recent test year with 17,035 pounds of milk, 602 of butterfat.

Extra

The mark of a true cattleman is an extra ingredient involving more than the routines of feeding and management . . . something that would be called a "green thumb" in gardening, or a "real pro" in sports. Symbolic of that something extra is the habit Bob and Dorothy have of checking the milking herd, and the young cattle, at about 10 p.m. each evening.

A hospital superintendent would label it "tender, loving care" . . . the theologian would call it "concern." In any case, it's always present in folks who have outstanding herds . . . or outstanding corn crops . . . or superior performance in most anything, for that matter. — G.L.C.

INNOVATOR

Near Cato, New York . . . at the intersection of Broadway Road and the Old State Road . . . Ellis Hall and son Ronald operate a poultry and cash-crop farm. He grows around 300 acres of corn each year, marketing some of it through his 14,000 laying hens . . . and, beginning only recently, through pullets he raises from day-old to 20 weeks of age.



Ellis Hall starts 32,000 caged chicks at a time in this new brooder house. Note space heater at right.

Ellis has long been an innovator. He started drying corn on his farm in 1954 . . . started combining corn in 1956 . . . and has long been using cages in a flat deck for layers. Unlike the wall-to-wall poultry houses, though, these cages have alleyways between rows.

Rearing

Not far from the laying house are the new rearing facilities. The building measures 42×340 feet, and starts 32,000 chicks at a time. It has seven inches of insulation in both ceiling and sidewalls (R factor of 22). Interior sidewalls are formed of half-inch fiberboard; the ceiling (and exterior) are aluminum roofing.

For starting, 25 chicks are placed in each 24×41-inch cage, reduced temporarily in size to a 24×24-inch by a divider which is later removed. Newspaper in the bottom of cages helps the chicks at first, is pushed through the wire by the pitter of little feet after a week or so. The sidewalls of the pits under these brooding cages are formed two concrete blocks deep.

Heat is provided by eight industrial-type suspended heaters fueled by LP gas. They are so arranged that air is moved around the house in a counterclockwise direction . . . and each heater unit is tilted about eight degrees toward the center of the house. Chicks are started off at 85 degrees F., then temperature is lowered as time goes on.

Lighting

Light begins at 24 hours duration, drops down in steps so it is at 9 to 10 hours per day by 6 weeks, and continues at this length to 20 weeks. Light intensity is low enough so it is difficult to see clearly inside the house.

At present, Ellis is growing pullets that will wind up in the laying houses of other poultrymen. However, his long-range plans include a 30,000-bird laying house that will absorb a higher proportion of his started pullets. He is a member of Gromark, an Agway-sponsored organization of poultrymen. "An independent poultryman can produce eggs economically, but he's apt to be lost in the marketplace," Ellis comments.

The Halls easily qualify for the Gromark principle that a poultryman should have two acres of cropland available for each 1,000 laying

hens . . . so that manure can be recycled through crops and back to the hen. Ellis uses hen manure for fertilizer, but he also purchases considerable amounts of inorganic fertilizers to feed those 300 acres of corn.

Basic Materials

He teams up with neighboring farmer Cliff Mills to buy basic ingredients by the carload. Muriate of potash is plowed down for corn at the rate of 225 pounds per acre . . . then 225 pounds per acre of ammoniated phosphate (11-48-0) goes on with the planter . . . and anhydrous ammonia (160 pounds of N per acre) is chiseled in as a sidedressing. Costs of plant nutrients are substantially reduced through purchase in large quantities, and in the basic form, Ellis comments.

He has a six-row corn planter, equipped with a cross auger to handle bulk fertilizer. The entire Hall operation is highly mechanized . . . and the well-equipped farm shop is steadily busy with maintenance and adjustment.

But it's not all work . . . snowmobiles offer winter recreation, and the Halls are building a family recreation area atop one of the drumlins so characteristic of the topography in the area. With 500 acres of their own land, plus 300-400 rented each year, they have plenty of elbow room for most any outdoor recreation!—G.L.C.

TOTAL MIXED RATION

Just outside Springfield, Vermont, hardly better than good spitting distance west of the Connecticut River, a father and son-in-law team have developed a uniquely successful dairy operation.

In the years since 1965 . . . when Leonard Germain and his father-in-law Richard Whitcomb first formed their farming partnership in the Green Mountain State . . . their Valley Brook Farm neighbors have witnessed substantial changes. The partners' cows changed color; their dairy barn changed from stanchions to free stalls, and their feeding system changed from conventional to total mixed rations.

Forage Base

Top-quality forage is the base on which their total mixed ration is built. "We try to have our first cutting in by the end of May or the first week in June," Leonard explains. "It all goes in for haylage. Then we can get the second crop off by the middle of July."

"In arriving at the content of our 'complete feed'," adds Leonard, "we first figure how many tons of each forage we have on hand after harvest. We like to feed a constant ration year around. We think that feeding the same feed all the time eliminates problems of stress that occur with feed changes. We don't use green-chop."

"Right now our ration is made up of 50 pounds of 30-percent-dry-matter corn silage, 20 pounds of haylage, 14 pounds of a 22-percent-protein concentrate, plus trace mineralized salt and minerals. This figures out somewhere between 14 and 16-percent crude protein for the total

(Continued on next page)

mix. In addition, we give two pounds of grain to all cows when they come in the parlor. We send forage samples to the University for testing."

All Ages

One total mixed ration, with a little modification, serves animals of all ages on the Whitcomb-Germain farm. Calves start on 6 pounds of milk, then are quickly moved up to 8 pounds per day. But they're provided "the mix," laced with an extra couple pounds of grain, as soon as they'll take it. By eight weeks, they're eating substantial amounts . . . and at about 4 months they "graduate" to the straight mix.

A Gehl blender box is used for feeding, the mix components being added in layers, then thoroughly blended so that no separation occurs. "It's not very time-consuming. Even making three stops for the different age groups, we can feed 100 head in less than an hour a day," Leonard comments.

Bunker Silo

The partners have utilized their bunker silo for both corn and hay-crop silages by making "sandwich silage" . . . storing one forage on top of the other. "We use a truck to fill it, then level the silage on the pack with a snowplow blade on the tractor," reports Leonard. "We have also tried an old three-point hitch cultivator with some of the teeth removed for distribution. It worked pretty well."

In making the conversion from stanchions to free stalls, the partners utilized available facilities. Their free stalls are constructed right over the old cow beds in the ventilated stanchion barn. The partners hoe out stall droppings daily; bed once a week. Holes were cut in the ceiling to allow an old hay drier fan in the mow to provide a constant flow of air down through the stable on hot summer days.

A double-two parlor, with a milking unit at each stall, permits a milking capacity of around 40 cows an hour.

Tight Ship

It appeared to this observer that the Whitcomb-Germain team were running "a good, tight ship." Investments in buildings and facilities were modest (if the capital outlay on any of today's dairy operations can be called that) and the utilization of these facilities was high; cattle and equipment were well cared for; timeliness of operations appeared excellent.

They must be doing something right. At the time of my visit, annual milk production per cow was crowding 17,000 pounds!—*Bill Quinn*



Richard Whitcomb, right, son-in-law Leonard Germain, and grandson Mark Germain represent three generations at the Valley Brook Farm. Leonard holds valve in plastic sheet through which a vacuum can be drawn on silage stored underneath.

JOB OPPORTUNITIES

Nearly one in three persons in the United States is now employed in agriculture and related industries.

Scores of these agriculture-related careers . . . and the type of training they require . . . are described in a new book entitled "Looking Forward to a Career in Agriculture," written especially for junior high and senior high school students by Harold B. Swanson, head of the agricultural journalism department at the University of Minnesota and one of the nation's leading educators.

Copies of the book may be obtained at your bookstore, or by writing to: Dillon Press, Inc., 106 Washington Avenue North, Minneapolis, Minnesota 55401. Price is \$3.95, plus postage.

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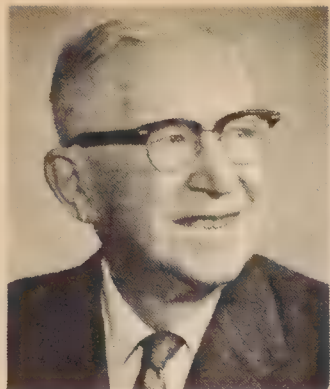
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"I'm not fishing, I'm catching worms . . . wanna see?"



Tax reform

by Amos Kirby
New Jersey Editor

THE proposed tax reform program promises to be the most important issue confronting New Jersey growers. Briefly, the proposal calls

for shifting the school-tax burden from real estate to other sources. This involves nearly 60 new laws changing many of the existing statutes that have been in effect for many decades.

This calls for payment to the State of \$1.00 per hundred of assessed valuation, and the imposition of an income tax. Until the proposed legislation is enacted, the fate of the Farmland Assessment Law is not known.

There appears to be general agreement on the need for a change in the tax laws, but it's not certain that the final tax load on a farm will be greatly reduced. This is a question that the State Grange-Farm Bureau legislative committees have been pondering.

SUNFLOWER

The University of Delaware is conducting demonstrations on the growing of sunflowers as a commercial crop in that State. The expansion of the bird-feeding program, largely among non-farm residents, has created a fast-expanding market for sunflowers.

If satisfactory yields are secured, the sunflower may find a place in the fast-changing farm picture of the Northeast.

GRAIN SORGHUM

Can grain sorghums be grown profitably in New Jersey? The answer is being researched in a field test in Salem County under the supervision of the Extension Service. Twelve varieties are being tested on the farm of Dan Cruzan, Bridgeton. The major objectives are to determine growth characteristics, resistance to disease, and bird activity.

CHAVEZ MOVES EAST

The United Farm Workers, founded by Cesar Chavez, has moved into the East. It has established an office in Delaware, and has picketed the State House in Trenton. Its objective in Trenton has been to condemn the Farm Bureau as being racist and anti-worker.

As viewed by Farm Bureau-Grange officials, the thrust of the UFW will have little effect upon farmers in 1972. To date, the UFW is seeking publicity and attempting to discredit growers and farm or-

ganizations as being unfair to workers.

The attempt to boycott crops grown and harvested by non-union workers appears to have lost its appeal to consumer groups.

If one takes a close look at farm operations in Delaware and New Jersey, one finds a significant trend toward planting crops that can be mechanically harvested.

NEWCASTLE WARNING

The New Jersey Department of Agriculture is warning poultrymen to be on the lookout for the exotic strain of Newcastle. It has been severe in Florida, Texas, New Mexico and California.

According to Dr. Edwin Brower of the Department of Agriculture, this form of Newcastle is more virulent than the type formerly present in some flocks.

Any symptoms of Newcastle should be immediately called to the attention of the Division of Animal Health at Trenton.

NEW TOMATO HARVESTER

When the South Jersey tomato harvest starts in August, there will be a new type of harvester on the market. This is a machine tried out in 1971 with promising results. This spring, the manufacturer (Porterway Co., Waterloo, New York) conducted field tests in Florida. It appears better adapted to eastern conditions than many of the California types used in former years.

PLASTICS ON TOMATOES

A new use for plastics on early tomatoes has proved successful in Salem County. Plastic sheets . . . the same type as those used by early-sweet-corn growers . . . when laid over the newly-set plants, has overcome late frosts.

The plastic sheet serves as a mini-greenhouse, protecting the plants from high winds, stimulating faster growth, and encouraging an earlier set of fruit.

PROTEIN VERSUS FAT

A new yardstick for use in determining the value of milk is on the horizon. Indications are that the protein content of milk may be of greater importance than the long-accepted butterfat index.

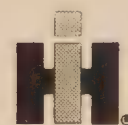
Penn State dairy specialists are developing a system to determine the protein factor. Until recently, there has been no simple system to determine the protein content of milk. Now there is a protein-testing machine, introduced from Denmark, that is both accurate and reliable.

REAL ESTATE MARKET

The most active market in many areas of New Jersey appears to be real estate. This is evidenced by the decline in the number of farms, and the rising prices being paid for land by speculators and others.

The Rutgers *Farm Economist* reports that Garden State farmland during the past three years has been disappearing at the rate of 10,000 acres per year. Indications are that this will be exceeded in 1972.

Since 1969, the average price of New Jersey farmland has increased from \$916 per acre to \$1,094 in 1971.



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NORWOOD	Norwood Motors
ONEONTA	West End Implm't
PERRY	Walkley Farm Eqpt.
ROCHESTER	Rochester Tractor
SALEM	Salem Farm Suply
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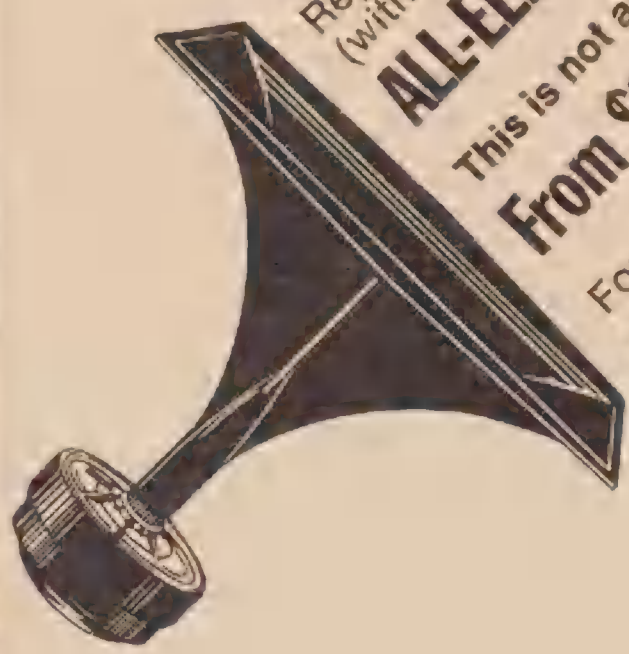
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What's NEW in the FIELD



by Bill Pardee

Pasture improvement

SUMMER is a good time to check pastures for opportunities to improve carrying capacity and boost profits. Despite moves to year-round stored feeding on dairy farms, we still have lots of pastures in the Northeast. Chances are you, like many others, have land you're already grazing with cows, heifers, beef cows or sheep. Or you may have some rough or unused land you'd like to make pay its way.

Some pastures can become better money makers with just added lime and fertilizer, others can benefit from judicious use of weed-killers and mowers. And where the potential warrants, complete renovation can pay, particularly with new techniques and weed-killers coming on the market.

Suggestions

We've pulled together suggestions you may find helpful in coaxing your pastures into giving more help with your bank account. In preparing this, I've consulted with agronomists Dr. Bob Seane, New York State College of Agriculture and Life Sciences at Cornell, and John Baylor, Pennsylvania State University.

For openers, begin with a close look at what's above and below ground in your pasture. That means checking what's growing on top, in grass and weeds, as well as taking soil tests to determine your lime and fertility levels.

Summer is a good time to check both. Grasses and weeds are easiest to identify in mid-summer. And soil samples are easy to get. Also soil test labs are in a slack season, so you should get your results back quickly.

Your plant examination can help you decide how much improvement you need. If you've got timothy, brome or orchardgrass with a fair sprinkling of alfalfa or birdsfoot trefoil, you're in good shape and may not need to go further. But more likely, you'll have bluegrass that's losing ground to weeds. If so, your decision should hinge on how much grazing you need.

Bluegrass

Bluegrass makes good pasture but it's low-yielding compared to legumes like alfalfa and birdsfoot trefoil and tall growing grasses like timothy, brome or orchardgrass. Bluegrass puts most of its growth into the spring and fall and goes dormant under summer heat. But if it's there, it's cheap and worth using.

You can help bluegrass by mow-

ing the pasture twice during the summer, once in late June or early July to get ungrazed areas and early weeds, then again in August to get summer and fall-flowering weeds.

Broad-leaf weeds spreading in grass pastures can be clobbered with 2,4-D spray in mid-fall or early spring when they're tough and mature; 2,4-D hurts most broad-leaved weeds, but tough perennials may need several sprays. Whenever you use 2,4-D on pasture, wait seven days before pasturing to avoid risk of picking up residues.

Renovation

If your stand is mostly weeds or if you need more feed than bluegrass can produce, then you should consider renovation to establish higher-yielding species.

Push your pencil carefully, because renovation takes time and money you can invest elsewhere on the farm. Renovation can pay, but not everywhere or for everybody.

One key to the cost of either simple improvement or full renovation is your soil test. Check particularly your lime, phosphorus and potassium needs.

Most Northeast pastures require ample lime applications to grow legumes, somewhat less to grow good grass. Most lime recommendations are for an 8-inch plow-depth, and if you are plowing for renovation you should try to get on all that's needed. But if you're only scratching up the old sod, or killing it with herbicide, you can spread up to 3 tons on the surface. This usually will raise the pH in the top several inches enough to permit establishment of alfalfa or trefoil. You'll need further applications in later years to keep them going.

Annual phosphorus and potassium applications can pay on legumes. Base your rates on your soil test readings.

Nitrogen can boost grass yields substantially. Somewhere between 40-80 pounds of N applied in early spring is normally most profitable. Stay on the low side with bluegrass but hit grasses with greater growth potential harder.

The biggest and most important job in pasture renovation is to kill out the stuff that's growing there now. Otherwise it will provide tough competition for your seeding and your chances for success are slim. Methods available include tillage practices, herbicide applications, or

(Continued on next page)

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the two together. Best method depends on your situation.

In either case, if you've renovation in mind, you can start now to prepare your pasture. Graze it hard this summer and mow weeds and ungrazed spots several times. Purpose is to weaken the present stand and prepare it for easier killing. Meanwhile you can get your soil test results and apply lime as suggested.

Tillage can be done in summer, early fall or next spring. Plowing and fitting is best, but heavy disking or harrowing can be adequate. If possible, separate harrowings over several weeks can help kill tough weeds and sods.

Sowing

Time of sowing after tillage depends on the crop you desire. You can sow alfalfa and grass until mid-August, grass alone up until early September. But if you're interested in birdsfoot trefoil, wait until spring. Summer seedings with trefoil fail too often, due to lack of time for good establishment before winter.

Varieties to use depend on your soil, how often you want to plow, and whether you plan to practice rotation grazing. We've seen good results with mixtures of Iroquois alfalfa, Climax timothy, and Viking or Mansfield birdsfoot trefoil. However, Empire trefoil and timothy does best where really long life is desired. Saratoga brome grass gives more regrowth than other brome varieties, and so fits best in pastures. Pennmead and Pennlate mature later and hold quality longer than other orchardgrass strains and so should be your pasture choice.

Rotation

All of these varieties do best under rotation grazing, and it's a must with alfalfa and Viking trefoil. Continuous grazing will kill these out, reduce grass yields and hasten the decline of your pasture back to weeds. Switching to high-yielding species won't pay unless you plan to follow with good management, rotation grazing to permit pastures to recover, store root reserves, and completely do away with undesirable species.

At this writing, 2,4-D is about the only effective herbicide helpful in renovating pastures. It does well on many broad-leaf weeds, but won't hurt grasses. Clobbering your broad-leaf weeds in fall or early spring a week to 10 days before your tillage operations can weaken them and make them more likely to die. But you'll still need as full a tillage operation as you can manage.



"It's nothing serious . . . whenever the city gets on his nerves, it takes a weekend in the country to unwind him."

American Agriculturist, July, 1972

Paraquat, however, looks far more promising. A broad spectrum weed killer, already in use in Europe for pasture renovation, Paraquat has shown its capabilities in tests in Ohio and Pennsylvania. Right now, Paraquat is not registered for use on pastures. However, application has been submitted to the federal Environmental Protection Agency for registration for this purpose. It's risky to anticipate clearances, but there now seems good chance that Paraquat will be cleared this summer. If so, we'll have a first-rate chemical added to our arsenal.

Paraquat registration will open up several opportunities. Since it will provide about six weeks knock-down of perennial grasses and broad-leaves, it will permit mid-summer seedings. Best bet will still be to graze heavily to weaken the present sod, then spray with Paraquat. Several harrowings should still pay off, but plowing won't normally be needed.

Equipment

We need more experience with planting equipment, but it looks as if regular seeding equipment will be adequate. Packer wheels, cultipackers, rollers or other compacting equipment should be used to pack the soil around the seed to provide good seed-soil contact. Best pieces of equipment are so-called grassland drills, specially designed for seeding in sod. They're not plentiful, but there are some scattered over the Northeast. If you can beg or borrow one, it can help your stand. But if you can't, a grain drill modified to sow seed behind the dispensers can do the job.

Paraquat will also fit into spring seedings. It can be sprayed on in mid-fall or early spring. Then, later in the spring, you can follow up by harrowing, then make your seeding. Don't plan on pasturing Paraquat-treated fields until legume and grass seedlings are 3-6 inches tall.

Comeback

Paraquat is primarily a contact herbicide, killing plant tissue that it hits. Some perennials, like dandelions, have deep tap roots and can come back after being burned off by Paraquat. We need more experience on this, but it looks as if we can get these with a 2,4-D application a week to 10 days before applying Paraquat.

Paraquat preceded by 2,4-D may make "no-plow" renovation possible. It's been done experimentally and in on-farm demonstrations. But we need wider experience with this practice before we can learn the tricks and pitfalls and figure out the odds for success. As soon as it's cleared we'll be able to gain more farm experience, and that's what's needed. But right now it looks good as a help in developing pastures that pay.

Pasture management is an art in itself, and it's a must to take advantage of the improvements you make. There's no point in investing good money in renovation, then losing a stand through over-grazing or lack of fertilization. For further information on top pasture management practices or on the procedure above, check your local extension recommendations.

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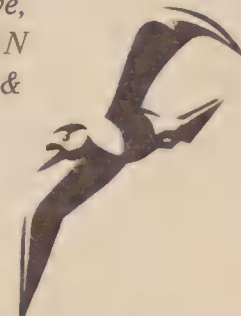


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Loading cattle and horses



SINCE last November, the weather here in the Northeast has been the worst it could be for the health of animals, and I suppose for man too. A wet, mild winter and cold, wet spring emphasizes the fact that, though infectious disease is caused by bacteria or a virus, stress is also an important factor. This stress can be caused by many different things . . . a few of which are weather changes, poor nutrition, uncomfortable housing, and injuries from accidents.

For years, the term "shipping fever" has been in common usage. This term covers a multitude of diseases caused by various organisms, brought about by stress, often associated with shipping. This time of year we do not see this disease often, so I will confine the discussion to other problems associated with motor transport of animals.

I would suggest, however, that if you are showing cattle or horses, make sure you have cattle vaccinated against respiratory infections with a product or products recommended by your own veterinarian, and have horses vaccinated against influenza, Venezuelan, Eastern and Western Encephalomyelitis, and tetanus. In fact, in horses this should have been done before early summer.

Clean

Experienced cattle truckers are available in most areas of the Northeast, and they will give you proper advice about preparing, loading and unloading. A good way to judge a trucker is by the way he cares for his truck; be sure he has cleaned and disinfected it before he arrives at your farm. I mention cleaning before disinfecting because all the disinfectant in the world won't do any good on a dirty truck!

Some things are the cattle owner's responsibility, or need to be decided with the trucker before loading. As an example, before putting bedding in a truck for cattle, a small amount of sand should be put on the floor. Too much sand, or sand containing small stones, is worse than none. Cattle will always enter a bedded truck more readily than a bare one.

Provide your trucker with a safe loading area without a steep slope to the loading gate. Look in advance for holes where an animal can side-step, fall in and break a leg.

Cattle that are properly halter-broken usually load easily. Put a little bedding on the loading ramp and you will find that most animals will go on much easier. Do not use, or allow anyone else to use, an electric prod to load cattle that are going to be shown. A little gentleness and patience is far more valuable, and avoids the danger of making an animal "man-shy."

Tie cattle with good rope halters having enough rope to lie down if they must, but not enough to get a

foot over. If you have to knot a halter so it won't slip off, be sure it is not so tight it will draw up and cause injury if it gets wet (rope shrinks when damp). Never tie a bull by his ring. A rope around his horns and down through his ring is an excellent way of tying, however.

Watering

Cattle will stand and be more content with a little good hay to chew on. For several days before moving to a show, cattle should be watered from a pail so they get used to it. In this way, you can water them on the truck if they are on for several hours, or at least they will drink as soon as they arrive at their destination.

Unless it is desperately hot, it is a good idea to blanket cattle while they are being trucked. A set of old bed-blankets, or ones made of burlap bags, are good for this purpose. Your animal is not only kept from being chilled by the wind in the truck, but is kept clean.

It is easier to wash a blanket than to rewash a cow. The switch on a cow's tail can be kept clean by bandaging as you would a horse, but be careful not to "cord" the tail and cut off circulation.

Trucking a cow while her udder is full of milk can cause her suspensory ligaments to break down and ruin her. Always milk a cow dry before loading her, and if necessary, use an udder support. A fresh cow with a seriously caked udder should not be trucked without an udder support.



Dick Sparrow says "Giddap!" and his 40-horse hitch of matched sorrel Belgians start off for a practice run on Sparrow's farm near Zearing, Iowa. The big test will come on July 4, when Sparrow hitches his 40 to the five-ton historic Columbia bandwagon, with musicians atop, for the three-and-one-half-mile Schlitz Circus Parade in Milwaukee. Meanwhile, he has been rehearsing his huge team . . . and building his own skill and confidence . . . for a feat of horsemanship that hasn't been attempted for 68 years, not since the Barnum & Bailey circus parade in 1904.

Sparrow will have 10 outriders and other helpers, including a brakeman, plus two men standing directly behind him to help pull the lines back through his fingers each time the team straightens after making one of the 15 turns in the parade march.

Finding an experienced horse trucker is more difficult than for cattle. Certainly there are many, but there are, as in all phases of the horse business, many amateurs. The ones who know they don't know are not apt to get you into trouble, but the ones who believe they know may unintentionally give you wrong information.

Some 4-H and pony clubs have had . . . as part of their programs . . . instructions in motor transport of horses, and I would say this would be a good subject to continue. Some of the most serious horse injuries I have seen have been caused by mistakes in loading, transporting or unloading.

Horses tend to haul easier than cattle because they usually lean to the inside of a turn. Cattle tend to lean to the outside of a turn and can literally pull a truck over.

Whether to load lengthwise or crosswise can cause great arguments. If the driver is experienced, I would leave this decision up to him. As nearly as I can tell, this is a matter of size of vehicle, weight of the animal, hills to be encountered in route, and probably more important, personal preference.

The matter of bedding in horse transport is different than with cattle. In a horse-hauling vehicle, I prefer a rubber mat rather than bedding, which tends to become slippery. If rubber mats are not available, light sand and a little sawdust or shavings are better than straw. A little bedding on the ramp or in the vehicle may be a help in loading, as it is with cattle, but don't overdo it.

Protection

The most important thing in horse hauling is protecting the legs, hoofs and tail with bandage. I recently saw three valuable horses that had to be taken out through the roof of a van because it had tipped over on its side, blocking the only exit. These horses had been well protected with bandage and there was not a mark

anywhere on their legs. A well-equipped local fire company with a saw for cutting the roof, and a thinking person who bandaged before hauling, made the difference between three healthy horses and perhaps three permanently damaged.

To bandage, use pads made for the purpose, or sections of cotton crib pads under the bandage. These pads should extend one or two inches below and above the bandage, and low enough to protect the coronary band at the top of the hoof. Horses that damage their own feet by side-stepping can be further protected with bell boots. These are rubber sleeves, bell-shaped to fit over the hoof. Tails should be bandaged to protect them from rubbing.

Tying

Except in closed vans during hot weather, blankets or sheets should be used. These too offer some protection from injury. I prefer to see horses tied quite short. They do not need enough rope to lie down, and some will use the rope as support. A good horse vehicle should have partitions to protect horses from kicking or biting each other.

If at all possible, borrow a trailer, van or truck to practice loading your inexperienced horses. If you can lead your young horse off and on a few times and not scare him the first time he travels, you have saved hours of anguish. Do not try to practice loading on a trailer not properly hitched, because it will tip up and scare the horse.

Your veterinarian will administer tranquilizer or you can feed it by mouth the first time you load a "green" horse. Be sure it is given far enough ahead to take effect. Once a horse is excited, it won't work, and you may get a delayed reaction that will make your horse act stupid when you want him alert.

No Hypos

I should not have to mention this, but don't ever let a well-meaning friend use a hypodermic needle to give your horse tranquilizer. The syringe, or the material, could be contaminated with the virus of equine infectious anemia.

There are dozens of "tricks" to loading, and each one is good for a certain horse. Pre-training your horse is most important, so he goes on unfrightened. Don't expose your horse to a shaky ramp, a shouting helper, the man with the big whip (not to be confused with a professional whip trainer), or the slippery floor in a vehicle. These things are never forgotten by a horse.

Know Your Horse

Some horses will van or truck well, but are scared of trailers; some won't load or ride well in a partitioned vehicle. Some won't ride well if tied short, but need a brace or rope behind them, and vice versa. These are the important things you must learn about your own particular horse. Also learn how he loads best.

For getting nervous horses into trailers, I like the method of crossing two ropes behind and going up slowly. This works fine on standardbreds or horses used to harness, but it can prove to be a bad mistake on certain horses. Experience will be the best teacher for both you and your horse.

LIVESTOCK



Plowing Contest — Here are first and second place winners in the recent plowing contest sponsored by the New York State Draft Horse Club, as reported by secretary Margaret Menkins of Tully. (All from the Empire State, unless otherwise indicated):

Horsemanship — Don Smith, Marathon; Art Ospelt, Pennellville.

Gang Plow — Bob Ames, McGraw; Bruce McCulloch, Whitney Point.

Walking Plow — Paul Waltermeyer, Jamestown, Pennsylvania; Art Ospelt.

2-Horse Sulky — Herb Peters, Schenectady; Dick Sears, Sheds.

3-Horse Sulky — Paul Waltermeyer; Bob Ames.

Log Pulling — Both first and second place taken by Steiger Bros., Locke.

Bull Test — Emmadine Farm, near Poughquag, New York, is the site of the New York Bull Test Station. Recently, the first group of 29 bulls completed a 140-day test-feeding period... 15 Angus, 6 Charolais, 4 Herefords, 1 Santa Gertrudis, and 3 Simmental cross.

A Charolais from Forest Farm at Mahopac, New York, topped the test in one category with an average daily gain on test of 3.28 pounds. By breeds, average daily gain on test showed the Angus bulls averaging 2.67 pounds per day, Charolais at 2.81, Hereford 2.70, Santa Gertrudis 2.87, and Simmental 2.77.

EIA Tests — Horses should be tested for equine infectious anemia. This viral disease, which eventually ends in death, is found in 43 states. "Annual testing will identify carriers and eventually eliminate the disease," says Dr. James R. Wadsworth, Extension animal pathologist at the University of Vermont.

EIA can be contracted from flies, mosquitoes, infected hypodermic needles and surgical instruments. An acutely infected horse is a lifetime carrier. The virus is shed through the blood, milk, saliva, feces, and semen. Foals born from infected mares are also infected.

Acute symptoms, usually seen in late summer or early fall, are fever (104 to 108 degrees), severe depression and weakness, loss of weight, decreased appetite, and anemia. Subacute cases are common; these seem to recover in one to three weeks, but may recur. The horse may test positive on the Coggins test, regardless of symptoms. Animals that test positive should be destroyed, warns Wadsworth.

Meat Imports—Seventy-four percent of the 1.7 billion pounds of meat imported into the U.S. during 1971 came from six countries... Canada, Denmark, Australia, Netherlands, New Zealand and Argentina. These six countries also had 81 percent of the authorized meat export plants, although 42 countries are eligible to ship meat here.

American Agriculturist, July, 1972

GROMARK PROGRESS REPORT

Back in 1971, Agway, Inc. announced plans for a 1.2 million-bird poultry complex in Central New York. A new company called Gromark was created to maintain a 300,000-bird "home farm"... participating poultrymen were scheduled to raise and house an additional 900,000 laying hens on their own farms.

A recent visit with Duncan Woodward, manager of Gromark, reveals that construction of 10 poultry houses near Clyde, New York, is proceeding on schedule. Located on what is known in the area as the Brown Farm, the Gromark facility is being built on a site that was once a gravel

pit. Four houses were completed, two in production by early June.

Houses Slope

There are 30,000 birds housed in each 40x396-foot building (376 feet of cage row). The houses slope three inches per 100 feet for gravity-flow of drinking water. All are high-rise, sometimes designated as having wall-to-wall cages. Eggs feed by belts from all buildings to a central egg-processing room.

What about the exotic Newcastle all poultrymen are concerned about? Dunc comments, "We pretty much follow Cornell's recommendations and use Newcastle and bronchitis vaccine in the water at 10-14 days... then Newcastle in the water four

weeks after the first vaccination... Newcastle (La Sota strain) and bronchitis at 15 weeks in a spray... then a Newcastle spray at 21 weeks, and another every 12 weeks thereafter (these are also La Sota strain). This keeps the blood titer high enough so we shouldn't get wiped out even if the virulent strain of Newcastle does get loose in the Northeast."

There are 200 acres on the farm available for spreading manure... and neighboring farmers will also spread it on their land. Contemplated are contracts between Gromark and these farmers... involving manure as fertilizer for corn, and the purchase by Gromark of the corn grown. Maybe these could be called recycling contracts! — G.L.C.

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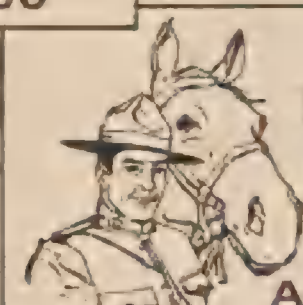


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Dollar Guide



"RESTRICTED EGGS" ... checks, dirties, incubator rejects, inedibles, leakers, and loss eggs ... came under provisions of Egg Products Inspection Act on July 1. After that date, checks and dirties may be shipped only to USDA-inspected egg breaking plants.

Exempted are sales of eggs from producers with flocks of 3,000 hens or less, and sales on the producers' premises, or on a route where producer sells directly to household consumers.

Recent study by college specialists in Northeast, involving the hand-candling of 600,000 eggs from 24 farms, found average of 12 percent of eggs checked (hairline cracks) before reaching the carton ... average of nearly 4 percent checks at point of lay!

YANKEE MILK ... formed as a result of merger of New England Milk Producers Association, United Farmers of New England, and Consolidated Milk Producers Association ... is scheduled to begin operating on July 1.

AGRICULTURAL DISTRICT can be made up of one farm operation under New York's Agricultural District Law ... if at least 500 acres are involved. Case in point is Mapleview Farm (857 acres, 500 tillable), owned by Gene and Tom Bennett of Short Tract (Allegany County).

Agricultural Resources Commission chairman Russell Billings reports nearly 100 districts have been proposed so far, involving 1/3 million acres.

ROUND MILKING PARLOR ... an 8-cow Bou-Matic Carousel ... on farm of Michael Blesy on Hinman Hollow Road near Little Valley (Cattaraugus County), New York, began operation on May 17, 1972. It's believed to be first round parlor in the State ... anyone know of an earlier one?

BUCKWHEAT is enjoying a comeback because of the "natural food" kick, whereby some people think dark color of buckwheat flour automatically makes it better. New York and Pennsylvania lead nation in acreage. However, average yield still very low ... only 17 bushels per acre.

EASTERN MILK PRODUCERS COOPERATIVE is negotiating with the H. P. Hood Co. concerning a joint venture whereby the cooperative would supply the product, and Hood would do the marketing in New England. If negotiations are successful, the arrangement might be similar to the Pro-Fac and Curtice-Burns setup in vegetable and fruit marketing.

FILLED MILK sales in Northeast have virtually been reduced to zero ... with the product disappearing from the Niagara Frontier area in February of 1972.

WOOL INCENTIVE price will continue at 75 cents per pound in 1972. In 1970, average price to grower on market was 35.5 cents per pound, government payments brought this up to 72 cents.

URETHANE FOAM is excellent insulating material, but can be dangerously inflammable if untreated. Coating with fire-retardant latex paint is recommended ... or using new-type urethane which is flame-resistant.

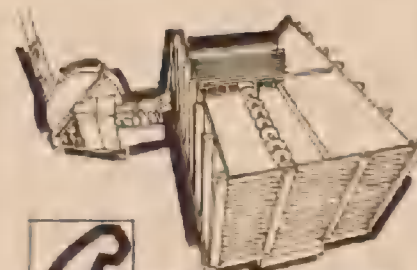
APPLE PROMOTION will continue in New York State as result of recent grower vote on marketing order ... financed by assessment of 3¢/bushel for fresh, 4¢/cwt. for processed, 2¢/cwt. for juice apples.

SINGLE-PHASE ELECTRIC MOTORS, ranging in horsepower from 15 to 75, are available from Ronk Electrical Industries, 105 E. State St., Nokomis, Ill. 62075. They're called Soft-Soft Start motors.

DAIRY FARMERS enrolled in the electronic farm accounting (ELFAC) program at the University of Vermont had a good year in 1971. Net farm incomes averaged: \$9,800 for small farms (averaging 33 cows), \$12,700 for medium (55 cows), and \$30,500 for large (115 cows).

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1972 FAIR DATES

Information Supplied by
State Departments of Agriculture

MASSACHUSETTS

Brockton Agricultural Fair	June 30-July 9
Weymouth Agricultural and Industrial Fair, South Weymouth	July 14-23
Barnstable County Fair, Marstons Mills	July 20-23
Marshfield Agricultural & Horticultural Fair	July 28-Aug. 6
Littleville Fair, Chester	Aug. 4-6
Highland Fair, Middlefield	Aug. 11-13
Martha's Vineyard Agricultural Fair, West Tisbury	Aug. 17-19
Westfield Fair	Aug. 18-20
Hillside Fair, Cummington	Aug. 25-27
Foxboro Fair	Aug. 26-Sept. 1
Spencer Fair	Sept. 2-4
Union Agricultural and Horticultural Fair, Blandford	Sept. 2-4
Hampshire, Franklin and Hampden Agricultural Fair, Northampton	Sept. 3-9
Rehoboth Fair, Dighton	Sept. 3-9
Franklin County Fair, Greenfield	Sept. 8-11
Barrington Fair, Great Barrington	Sept. 10-16
Eastern States Exposition, West Springfield	Sept. 15-24
Berkshire County Fair, Hancock	Sept. 23-Oct. 1
Essex Agricultural Fair, Topsfield	Sept. 30-Oct. 7

PENNSYLVANIA

Jefferson County Town and Country Fair, Sykesville	July 17-22
Lycoming County Fair, Hughesville	July 17-22
Plainfield Farmers Fair, Bangor	July 19-22
Kimberton Community Fair	July 19-29
Reading Fair	July 21-29
Shippensburg Community Fair	July 23-29
Butler County Fair	July 24-29
Troy Fair	July 24-29
Wolf's Corners Fair	July 26-29
Jefferson Township Fair, Mercer	July 27-29
Clarion County Fair, Fairmount City	July 30-Aug. 5
Clearfield County Fair	July 31-Aug. 5
Fayette County Fair, Uniontown	July 31-Aug. 5
Goshen County Fair, West Chester	July 31-Aug. 5
Morrison Cove Dairy Show, Martinsburg	Aug. 1-4
Jacktown Fair, Wind Ridge	Aug. 1-5
Union County West End Fair, Laurelton	Aug. 1-5
Mercer County Pomona Grange Fair, Clarks Mills	Aug. 2-5
Great Allentown Fair	Aug. 3-12
Cameron County Fair, Emporium	Aug. 7-12
Great Bedford Fair	Aug. 7-12
Great Dallastown Fair	Aug. 7-12
Greene County Fair, Waynesburg	Aug. 7-12
McKean County Fair, Smethport	Aug. 7-12
Wayne County Fair, Honesdale	Aug. 7-13
Butler Farm Show	Aug. 8-12
Potter County Fair, Millport	Aug. 8-12
Warren County Fair, Pittsfield	Aug. 8-12
New Stanton Community Fair	Aug. 9-12
Delaware Valley Fair, Milford	Aug. 10-12
Washington County Free Fair	Aug. 13-19
Lebanon Area Fair	Aug. 14-18
Carlisle Fair	Aug. 14-19
Dayton Fair	Aug. 14-19
Huntingdon County Fair	Aug. 14-19
Mountain Area Community Fair, Farmington	Aug. 14-19
Tioga County Agricultural Fair, Whitneyville	Aug. 14-19
Adams County Fair, Abbottstown	Aug. 15-19
Lawrence County Fair, New Castle	Aug. 15-19
Venango County Fair, Franklin	Aug. 15-19
Rostraver Township Fair, Belle Vernon	Aug. 16-18

Middletown Grange Fair, Wrightstown	Aug. 17-19
Westmoreland County Fair, Greensburg	Aug. 19-26
Carbon County Fair, Lehigh	Aug. 20-26
Bullskin Township Fair, Wooddale	Aug. 21-26
Crawford County Fair, Meadville	Aug. 21-26
Franklin County Fair, Chambersburg	Aug. 21-26
Fulton County Fair, McConnellsburg	Aug. 21-26
Middletown Community Fair, Royalton	Aug. 21-26
Somerset County Fair, Meyersdale	Aug. 21-26
Kutztown Fair	Aug. 21-27
Scott Township Fair, Olyphant	Aug. 22-25
Blue Valley Farm Show, Bangor	Aug. 22-26
Harford Fair	Aug. 22-26
Montour DeLong Community Fair, Washingtonville	Aug. 22-26
Hookstown Grange Fair	Aug. 23-28
Transfer Harvest Home Fair	Aug. 24-26
Centre County Fair, Centre Hall	Aug. 25-31
Indiana County Fair	Aug. 28-Sept. 2
Wattsburg Fair	Aug. 28-Sept. 2
Sewickley Community Fair, West Newton	Aug. 29-Sept. 1
Greene-Dreher-Sterling Fair, Newfoundland	Aug. 29-Sept. 2
Sullivan County Fair, Forksville	Aug. 29-Sept. 2
West End Fair, Gilbert	Aug. 29-Sept. 2
Big Knob Grange Fair, Rochester	Aug. 30-Sept. 2
Allegany County Fair and Western Exposition, Library	Aug. 31-Sept. 4
Great Stoneboro Fair	Aug. 31-Sept. 4
Bear Lake Community Fair	Sept. 1-4
Juniata County Fair, Port Royal	Sept. 2-9
Cambria County Fair, Ebensburg	Sept. 4-9
Ox Hill Community Fair, Home	Sept. 4-9
South Mountain Fair, Arendtsville	Sept. 5-9
Waterford Free Fair	Sept. 5-9
Pymatuning Joint Community Fair, Jamestown	Sept. 6-9
Dallas Area Fall Fair	Sept. 8-10
Green Township Community Fair, Commodore	Sept. 11-16
Greenfield Township Community Farm Products and Flower Show, Claysburg	Sept. 11-16
Bellwood-Antis Farm Show, Bellwood	Sept. 12-14
Albion Area Fair	Sept. 12-16
West Alexander Fair	Sept. 12-16
York Inter-State Fair	Sept. 12-16
Cochranon Community Fair	Sept. 13-16
Berlin Brothersvalley Community Fair, Berlin	Sept. 14-16
Economy Grange Fair, Baden	Sept. 14-16
Gratz Fair	Sept. 17-23
Williamsburg Community Farm Show	Sept. 18-21
Beaver Community Fair, Beaver Springs	Sept. 19-23
Southern Lancaster County Community Fair, Quarryville	Sept. 20-22
Harmony Grange Fair, Westover	Sept. 20-23
North East Community Fair	Sept. 21-23
Pennsylvania Black & White Show, Harrisburg	Sept. 23
Pennsylvania All-American Dairy Show, Harrisburg	Sept. 25-29
Bloomsburg Fair	Sept. 25-30
Ephrata Fair	Sept. 25-30
Morrison Cove Community Fair, Martinsburg	Sept. 26-29
West Lampeter Community Fair, Lampeter	Sept. 27-29
Oley Valley Community Fair, Oley	Sept. 28-30
Sinking Valley Community Farm Show	Sept. 28-30
Holidaysburg Farm Show	Oct. 2-5
Manheim Community Farm Show	Oct. 4-6
New Holland Farmers Fair	Oct. 4-7
Perry County Fair, Newport	Oct. 5-7
Tri-Valley Community Fair, Hegins	Oct. 5-8
Unionville Community Fair	Oct. 11-14
Dillsburg Community Fair	Oct. 19-21
Keystone International Livestock Exposition, Harrisburg	Nov. 4-10
Uniontown Poultry and Farm Products Show	Nov. 24-26
Pennsylvania Farm Show, Harrisburg	Jan. 8-12, 1973

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PLEASE PRINT

EASY DOES IT when you make your jams and jellies with the use of fruit pectin by this popular no-cook method. No cooking of fruit, no skimming of foam, and no paraffining of glasses are required. Extra bonuses are the bright appearance and the distinctive flavor of the fresh fruit. Many of the season's fresh fruit — from early berries to late grapes — can be turned into jams and jellies by using the correct proportions of fruit, sugar, pectin and water for each one.

Containers — Almost any kind of container (8 ounces or smaller and with tight-fitting covers) may be used — regular jelly or other glasses; cheese, mayonnaise or peanut butter jars, half-pint canning jars with metal lids; mugs; freezer containers. Containers and covers should be thoroughly washed, scalded and drained. Complete sealing is necessary; covers may be sealed on with freezing tape.



Jams and Jellies—the easy no-cook way

by Alberta Shackelton

Preparation — Use fully ripe fruit for best color and flavor. Sugar is added as for any other method. Follow directions for each recipe carefully. Pour quickly into prepared containers, cover tightly, and let stand at room temperature until set (may be up to 24 hours).

Such preserves must be kept in the freezer for indefinite storage, in the refrigerator freezing compartment for several weeks, or simply stored in refrigerator for use within three weeks. Once removed from storage, they require the same care as those made by the traditional method.

We are sure you will enjoy using the recipes below for jams and jellies made this easy way.

RED RASPBERRY JAM

3 cups prepared fruit
(about 1½ quarts fully ripe berries)
5¼ cups sugar
1 box powdered fruit pectin
¾ cup water

Completely crush berries, one layer at a time. If desired, sieve half of pulp to remove some of the seeds. Measure into large bowl. If necessary, add water to make exactly 3 cups. Add measured sugar to fruit and mix well.

Combine fruit pectin and water in small saucepan; bring to boil and boil 1 minute, with constant stirring. Stir into fruit mixture and continue stirring for 2 minutes. A few sugar crystals will remain. Quickly ladle into prepared jars, cover, and allow to stand until set. Makes 7 medium jars (8 oz.).

SEAT AND DECEIT

by Donna Eyleth

Lawn furniture of plastic cords,
Metal tubes, or painted boards,
Fancy wrought iron curlicues,
Or whatever else they use,

May be made to give the air
Of outdoor living's charm and flair,
But having tried it all unwitting,
I know it isn't made for sitting.

Blackberry Jam — Use recipe for Red Raspberry Jam.

STRAWBERRY JAM

2 cups prepared fruit
(1 quart fully ripe berries)
4 cups sugar
1 box powdered fruit pectin
¾ cup water

Completely crush berries, one layer at a time. Measure into large bowl, adding water to make exact amount needed if necessary. Stir in sugar and mix well. Combine pectin and water in small saucepan; bring to boil and boil 1 minute, with constant stirring.

Stir into fruit mixture and continue to stir 3 minutes. A few sugar crystals will remain. Quickly ladle into prepared containers, cover tightly, and let stand until set. Makes 6 medium glasses.

SOUR CHERRY JAM

2 cups or 1 pound prepared fruit
(1 quart fully ripe cherries)
4 cups sugar
1 box powdered fruit pectin
¾ cup water

Pit and grind cherries. Measure into large bowl, adding water to make exact amount called for, if necessary. Add sugar and mix well. Combine pectin and water in small saucepan, bring to boil, and boil 1 minute with constant stirring. Stir into fruit mixture and continue stirring for 3 minutes. A few sugar crystals will remain. Quickly ladle into prepared jars, cover, and let stand until set. Makes 6 medium glasses.

SPICED PEACH JAM

1½ cups prepared fruit
(about 1½ pounds fully ripe peaches)
2 tablespoons lemon juice
¼ teaspoon ground cinnamon
¼ teaspoon ground nutmeg
4¼ cups sugar
1 box powdered fruit pectin
¾ cup water

Pit, peel and grind peaches. Measure fruit into large bowl. Stir in lemon juice and spices; add sugar and mix well. Combine pectin and water in small saucepan, bring to

boil, and boil 1 minute, with constant stirring.

Stir into fruit mixture and continue stirring for 3 minutes. A few sugar crystals will remain. Quickly ladle into prepared containers, cover, and let stand until set. Makes 6 medium glasses.

CURRENT AND RASPBERRY JELLY

3 cups prepared fruit
(1 quart each red currants and red raspberries)
4½ cups sugar
1 box powdered fruit pectin
¾ cup water

Thoroughly crush currants, place in dampened jelly bag or 4 thicknesses of dampened cheesecloth, and squeeze out juice. Measure 1½ cups into large bowl. Then thoroughly crush berries, squeeze out juice, and measure 1½ cups into bowl with currant juice. Add sugar to combined juice and mix well.

Combine pectin and water in small saucepan; bring to boil and boil 1 minute, with constant stirring. Stir into fruit juice-sugar mixture and continue stirring 3 minutes. A few sugar crystals will remain. Quickly ladle into prepared jars, cover, and let stand until set. Makes 7 medium glasses.

CONCORD GRAPE JELLY

3 cups prepared juice
(3 pounds fully ripe grapes)
5¼ cups sugar
1 box powdered fruit pectin
¾ cup water

Thoroughly crush grapes. Heat slightly to extract juice more easily. Place in dampened jelly bag or 4 thicknesses cheesecloth and squeeze out juice. Measure into large bowl. If there is a slight shortage of juice, add water to make amount called for. Add sugar to juice and mix well.

Combine pectin and water in small saucepan, bring to boil, and boil 1 minute, with constant stirring. Stir into fruit juice and continue stirring for 3 minutes. A few sugar crystals will remain. Quickly ladle into prepared jars, cover, and let stand until set. Makes 8 medium glasses.



FOR THAT "COOL" SUMMER

We'll bet a hummingbird's tongue to a wasp's eyelash that you can't count the times you've said: "What's there to do?" Don't feel badly, though; each of us has asked this pleading question more times than we would care to admit. But you know something? A marvelous way to be "cool" on a hot summer day is to think up, and write down, as many activities and projects as come to your creative, imaginative minds. For instance: making a pebble or shell zoo. Look around you next time you take a hike in the woods or on the beach and start collecting those fascinating teeny stones or shells. Use a piece of board or paper and lay them out in animal shapes, and then glue in place. You'll be amazed at your artistic talents.

Make some colorful summer jewelry. Use pieces of small salad macaroni which you've painted in bright, bright watercolors and then string into necklaces or bracelets.

First ask Mom if it's okay, and then plan a progressive lunch or supper with some neighborhood friends. You start with an appetizer at one friend's house, then on to a main course at another's, then salad at a third friend's, and wind up with dessert at still another house. Or set up that ironing board with a gay tablecloth and have an indoor picnic done self-service style. Hot dogs, buns, relish, onions, mustard, and catsup can be laid out on the board along with paper plates, napkins, potato chips, and fruit. And you know what — you can eat your "picnic" on the floor!

How about a garden at home? Take an avocado seed which you (with an adult's supervision) have trimmed at the top. Insert 3 small nails or toothpicks in the middle of the seed for support. Suspend the broad end (not the cut end) in a pint jar of tapwater and change water several times a week. Do not place in direct sunlight. Or use a painted egg carton as a container for those saved egg shells (also painted) and plant several tiny garden seeds in moist dirt placed in the shells. Water according to directions on the seed packets.

We just know you can add at least a zillion other ideas to these suggested above. Have fun!

DO YOU HAVE...

Instructions for crocheting League of Nations dolls? This request comes from Mrs. Kenneth Wilbur, 415 McArthur Drive, Bricktown, N. J.

Recipes for cookies made with hard maple sugar (sugar was both in small pieces and shaved) and a cake made with sour cream and maple syrup? If you do, will you share them with Mrs. Warren Peck, Sr., 19 William St., Walton, N. Y. 13856.

Daguerreotype or Ambrotype photos you do not wish to keep? They were made about the time of the Civil War and come in different types of cases. Mrs. Carlton E. Cobb, 196 Riverside Drive, Tiverton, R. I. 02878, would like to hear from you.

American Agriculturist, July, 1972

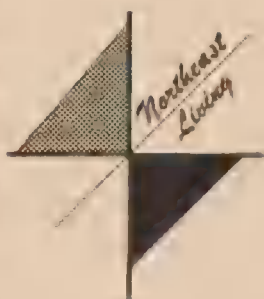


GARDEN TALK

by Doc and Katy Abraham

Watering the Garden

All growing plants need water, and most of our vegetables are about 90 percent water. This means that during the summer months they must have an even supply of water — 1 to 2 inches per week. In some parts of AA's circulation area, there is often a water shortage in the summer, and it's difficult to irrigate.



To apply the equivalent of 1 inch of rainfall requires about two-thirds of a gallon of water to each square foot of soil. If you have a good water supply, this can be delivered to the garden by perforated hose or sprinklers.

Water any time during the day or night. Time of day is not important, although you lose some water to sun in the heat of the day. Many feel that watering at sundown or in the evening will cause mildew and other diseases on the plants. This is doubtful, since rain and dew cover the foliage and do not bring on disease.

Note: If you must ration water, do your fruit trees and shrubs first, gardens next, and then lawns. All of these can be mulched with your favorite material after watering. We use straw, pine needles, buckwheat hulls, cocoa bean shells, muck, peat moss, black plastic sheets, compost, sawdust or wood chips. Any organic material we can get our hands on is useful as a mulch.

Did you know that a group of scientists recently found that here in the Northeast rain water is being turned into acid water because of industrial air pollution? The researchers claim that records show rain water used to be slightly alkaline; now it can be extremely acid, with a reading of pH 3, which is ten thousand times as acid as neutral water. Chemicals such as sulfur dioxide turn into sulfuric acid when mixed with water.

Those of you who have well water probably wonder what effect cold water has on plants. It can cause stunted growth. In homes and greenhouses, it can decrease plant height and weight. Always water your plants with warm water or water at room temperature. Some growers feel that temperature of water has nothing to do with growth, but research shows it does.

Our Good Earth

Is ecology a bunch of garbage? It would seem so when you consider the amount that school students picked up along two miles of highway in my home town on April 20! The trash picked up — garbage, beer and pop bottles, old tires, shoes, etc., was incredible.

How many pounds would you guess we picked up in just a two-mile stretch? More than 1200 pounds

of trash! Can you imagine how many tons litter our highways each year? When we think of the moon being a cold, lifeless planet, we should be grateful for the greenery we have on earth and do all we can to keep our country clean and green.

Look at the junk we're piling up each year — 80 billion cans, 38 billion bottles, 40 million tons of paper, 180 million old tires and 7 million junked automobiles. Let's figure out a way to re-use this trash!

Prolonging Life of Flowers

For years, florists have followed the ritual of pounding the lower two or three inches of stems, especially chrysanthemums. Is there a valid reason for doing this? Hard stemmed varieties don't take up enough water to maintain "crispness," and here's why.

The water-conducting pipes in the lower part of the stem plug up, a natural process that occurs after flowers are cut from a plant. When you pound the stem above the bottom inch or two, water enters there, and flower crispness is maintained. The crushed inches are only serving the purpose of elongating the stem.

You can also get more mileage from your cut flowers by using a flower preservative. These are available in flower shops, or you can make your own.

Mix 4 teaspoons of cane sugar and 2 tablespoons of white distilled vinegar with 1 quart of water (100°F). The vinegar makes the water acid and prevents spoilage due to fungi and bacteria. Sugar serves as food, but cannot be used alone, as it will hasten spoilage.

Another way to get more mileage from cut flowers is to cut the stem end every day or two. This removes the clogged ends and allows water to be absorbed.

AA Garden Clinic

A reader writes, "Last May we set our Easter lily in the garden, and it is about a foot tall. Will it blossom outdoors, and is it hardy?"

Answer — Yes. It should bloom the end of this month or in August. Leave it in the ground, as this lily is perfectly hardy and should bloom every summer. In three or four years, the bulbs will have multiplied and should be divided.

Calling all women..

Plan now to attend Empire Farm Days which will be held this year on August 8, 9, and 10 at Cornell University's Teaching and Research Center in Dryden, New York. Mrs. Jean Schwartz of Earlville, New York, is in charge of the women's program, and she promises different features for each day, all of which will be of interest to our women readers.

Mark the dates on your calendar, look for more information about the women's program in our August issue, and come to Empire Farm Days!

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Tiller Users!



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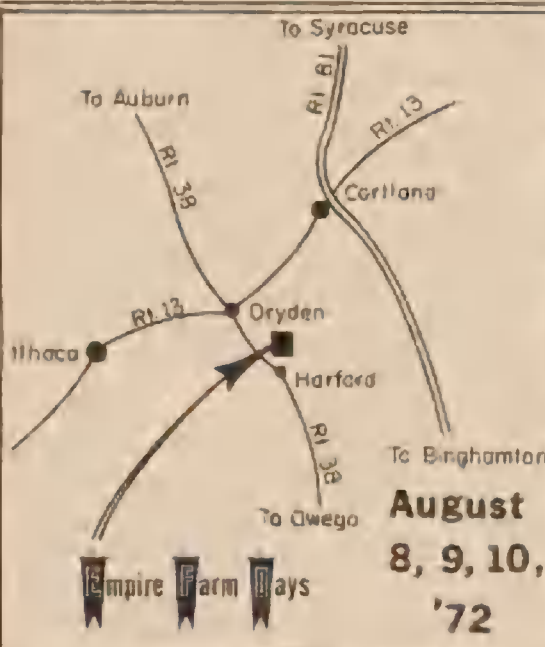
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August 8, 9, 10, '72

Books for Northeast Living

We have arranged with the publishers to supply directly to our readers, postpaid, any of the following books at the prices listed. Please allow three weeks for delivery.

Title	Author	Delivered Price
OLD-TIME AGRICULTURE IN THE ADS: Korolevitz		\$2.00
AGRICULTURAL ENGINEERING—A DICTIONARY AND HANDBOOK: Farrall & Albrecht		11.25
ANIMAL SANITATION AND DISEASE CONTROL: R. R. Dykstra		11.00
ANIMAL SCIENCE: M. E. Ensminger (1969 edition)		19.75
APPROVED PRACTICES IN BEAUTIFYING THE HOME GROUNDS: N. K. Haover		6.25
APPROVED PRACTICES IN BEEF CATTLE PRODUCTION: E. M. Juergenson		7.00
APPROVED PRACTICES IN CROP PRODUCTION: Brickbauer & Mortenson		7.50
APPROVED PRACTICES IN DAIRYING: E. M. Juergenson & W. P. Mortenson		7.00
APPROVED PRACTICES IN FARM MANAGEMENT: I. F. Hall & W. P. Mortenson		6.25
APPROVED PRACTICES IN FEEDS AND FEEDING: D. W. Cassard & E. M. Juergenson		8.50
APPROVED PRACTICES IN FRUIT PRODUCTION: A. H. Scheer & E. M. Juergenson		8.50
APPROVED PRACTICES IN PASTURE MANAGEMENT: J. S. McVickar & M. H. McVickar		6.25
APPROVED PRACTICES IN SOIL CONSERVATION: A. B. Foster		6.95
APPROVED PRACTICES IN SWINE PRODUCTION: Juergenson & Baker		8.50
ARITHMETIC IN AGRICULTURE: T. H. Fenske, R. M. Drake & A. W. Edson		5.00
BEEF CATTLE SCIENCE: M. E. Ensminger		15.35
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COOPERATIVES: TODAY AND TOMORROW: E. P. Roy		11.25
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FARM TRACTOR MAINTENANCE: A. D. Brown & I. G. Morrison		5.50
FEED FORMULATIONS HANDBOOK: T. W. Perry		6.00
FLOWER AND PLANT PRODUCTION IN THE GREENHOUSE: Kennard S. Nelson		7.25
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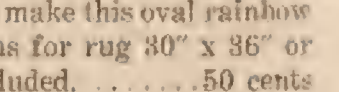
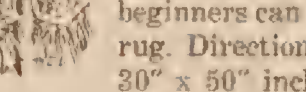
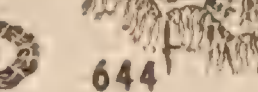
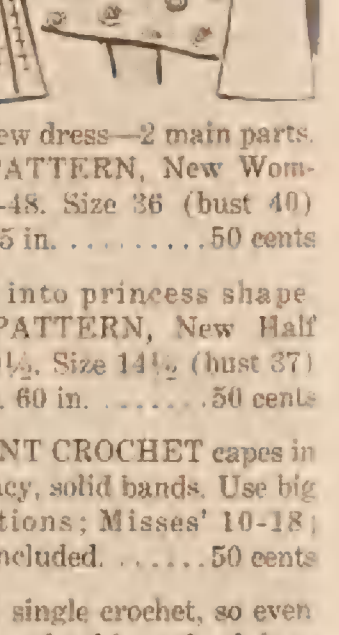
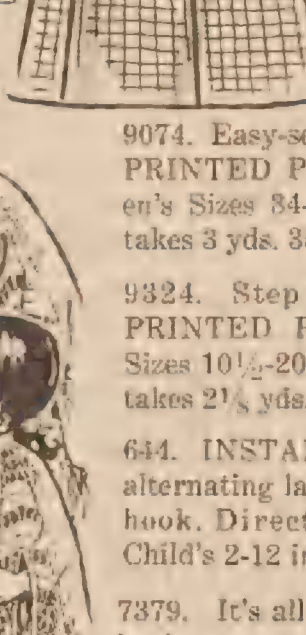
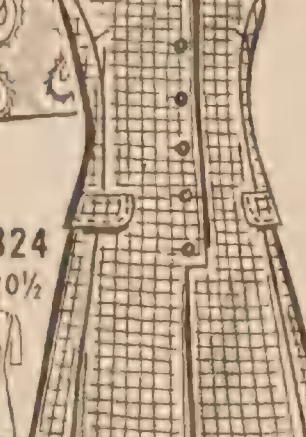
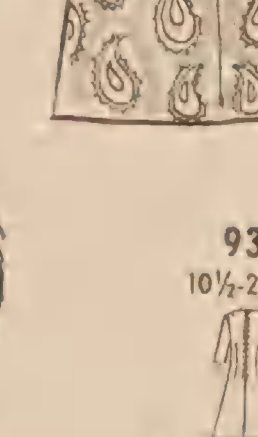
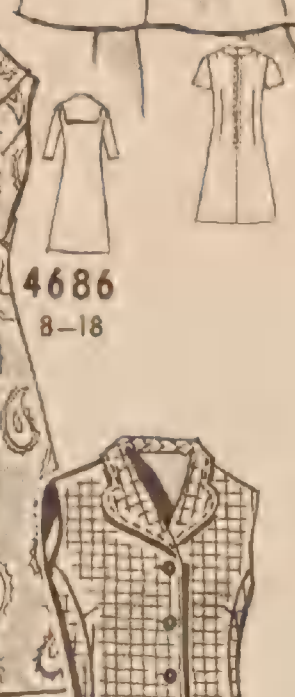
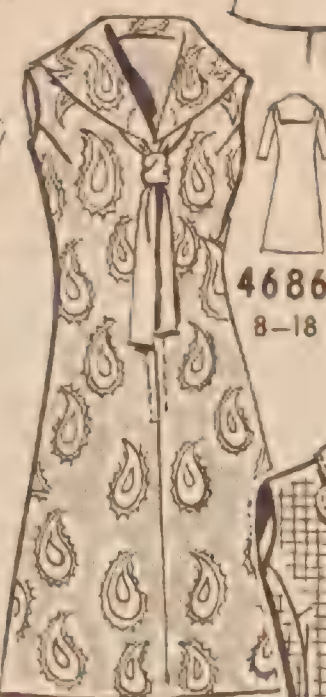
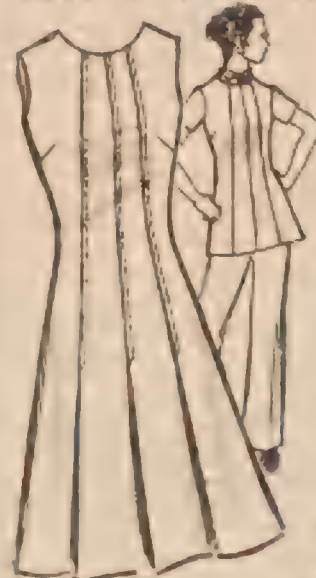
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Fall Vacations

Probably nowhere in the world is autumn foliage more beautiful than in New England. Changing colors combine with picturesque farms and towns in beautiful mountain and sea settings. We invite you to take a fall vacation and see this beauty for yourself on our **Fall Foliage Tour** from **October 7 to 15**. You can join the group either in New York City or in Albany, and the cost will be very reasonable.

We travel through the colorful Berkshire Mountains of Massachusetts to visit Old Sturbridge Village and explore the 36 original buildings moved there from many sections of New England. Next comes Cape Cod and its fascinating villages of Falmouth, Hyannisport, Barnstable and Sandwich.

There's so much to see in Plymouth — Mayflower II, Plymouth Rock, the Plymouth Wax Museum and Plimouth Plantation where there are replicas of typical early Pilgrim dwellings!

We'll visit all Boston's famous and historic sights, including Old Ironsides and Harvard University's famous collection of glass flowers. A side trip takes us to Lexington and Concord, and we'll enjoy luncheon at Longfellow's Wayside Inn, oldest operating inn in the country.

We stop at Nathaniel Hawthorne's "House of the Seven Gables" in Sa-

lem on our way to Portland, Maine. The next day we drive through one of the best known resort areas in "The Pine Tree State" and pass beautiful Sebago Lake, which covers 46 square miles.

Crossing the New Hampshire border, we find ourselves in the lofty White Mountains, probably the Northeast's most scenic area. Mt. Washington and other peaks of the Presidential Range loom above us, and everywhere is the ever-changing color of the autumn foliage. We see the famous Shelburne Birmches, ride to the top of Cranmore Mountain on the Skimobile, and drive through Franconia Notch to see the Old Man of the Mountains.

In Vermont, we'll visit the Maple Grove Museum in St. Johnsbury, a huge granite quarry in Barre, the capital in Montpelier, and the world's largest marble exhibit at Proctor. This ends our New England vacation, and we head south for Albany and New York City.

Paradise of the Pacific

If you have always wanted to visit Hawaii, here is the ideal time and way to go. Join our **October 9 to 21 Aloha Week Hawaiian Holiday** group and travel with a congenial AA tour party.

An Aloha jet takes us smoothly across the Pacific to Hawaii, where we visit the four main islands — Hawaii, Oahu, Maui and Kauai. Hilo, the orchid capital on the Island of Hawaii is our first stop. A few of the places we'll visit on the Big Island are Hawaii National Park,

Let's go to a Craft Fair

"To watch it being made, makes owning it twice the fun." This seems to be the opinion of the thousands of Americans who annually flock to hand-craft fairs to see craftsmen at work and to buy their wares.

There are several types of craft events, from the small, local hobby-craft sales to the major craft fairs sponsored by a state-wide organization of skilled craftsmen. They are all good fun, but it is a stimulating and a different kind of experience to visit one of the larger fairs where high standards of design and technical skill are required. Some craft fairs combine crafts of both traditional and contemporary design; others do not accept craft work that is presumably not original in design or pattern.

When on a trip, check for craft fairs that might make interesting stops. Usually they are held in locations that also offer other nearby attractions, recreation facilities, and sites of historic interest.

New Hampshire Was First

The League of New Hampshire Arts and Crafts is the oldest state-wide craft organization in the United States. It maintains year-around shops in New Hampshire, and its annual fair draws some 35,000 people.

The second group to organize was the Southern Highland Handicraft Guild which now includes nine states with headquarters in Asheville, N. C. Other state-wide groups have since formed, as well as some on a regional basis.

There is a never-ending fascination in watching a skilled craftsman at work, whether it be shaping a bowl on a potter's wheel, shuttling bright threads into a pattern of weaving, or, as if by magic, bringing an enchanting little doll out of a bundle of corn husks. Each fair is different; each is marked by the "flavor" of the location, by the personalities of the member-craftsmen, and by the character and diversity of the crafts produced.

Following is a list of some major craft fairs in the East and one in the Southwest in Albuquerque, N. M., where the finest craft work of three great cultures — Spanish, Indian and Anglo — combine in a program which

Akaka Falls (higher than Niagara), the quaint town of Kailua, and the City of Refuge.

Maui, the Valley Isle is second largest in the chain. Here we will see "The Needle," a fern-covered volcanic freak rising 2,000 feet above the valley floor, and Lahaina, historic whaling center. It was here that much of the movie "Hawaii" was filmed.

There are so many things to see and do in Honolulu and Waikiki on Oahu, the most famous island, that it's impossible to mention all of them. Planned sightseeing will include the Iolani Palace, Punchbowl Crater, a

(Continued on page 20)

also features folk singing, Indian dances and strolling musicians. Let's go!

July 10-14 — Craftsman's Fair of the Southern Highlands, Asheville, N.C.

July 18-20 — Fair of the Society of Vermont Craftsmen, St. Johnsbury, Vt.

July 19-22 — 15th Annual Guilford Handicrafts Exposition, Guilford, Conn.

July 21-23 — New Mexico Arts & Crafts Fair, Albuquerque, N.M.

August 1-6 — 39th Craftsman's Fair of the League of New Hampshire Arts & Crafts, Mt. Sunapee State Park, Newbury, N.H.

August 2-5 — Pennsylvania Guild of Craftsmen's Fair, Millersville, Pa.

August 5-11 — York State Craft Fair, Ithaca, N.Y.

October 17-21 — Craftsman's Fair of the Southern Highlands, Gatlinburg, Tenn. (The Guild holds two fairs, one in July, the other in October.)

With Our ADVERTISERS



The International 3200A Compact Loader can punch into a manure pile, dig out 1500 pounds and lift it over 9 feet. Equipped with a 30-hp engine, plus an exclusive power amplifier that kicks in automatically when the farmer begins working the pile. It pivots in its own length, works under a 6-foot clearance and passes through a 4-foot-wide doorway . . . bucket and all. Hydrostatic transmission with infinite forward and reverse speeds from 0 to 8 mph, 4-wheel drive, oscillating axles, 360-degree skid steering turns, and automatic braking are featured.

A new high-capacity 3-row pull-type Superpicker for wide rows, designed to provide non-stop, non-plug performance, has been added to Avco New Idea's line of corn harvesting equipment. The new unit, which will handle corn planted in 34 to 40-inch row spacings, supplements last year's 3-row pull-type unit for corn planted on 28, 30 or 32-inch centers. Avco also manufactures 1 and 2-row pull-type and mounted Superpickers.

The corn-hungry gathering unit is a mate for either Avco's big 12-roll husking bed, or the brand new cage-type Supersheller.



Gordon Conklin, Editor
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Joe De Felice, right, talks things over with Bob Savoy, who helps operate the 1,400 acre farm near Pavilion, New York.



Quackgrass control

QUACKGRASS may not be keeping New York and Pennsylvania from sliding into the ocean, as some claim, but the persistent perennial is causing problems for corn growers in these states!

Brothers Gasper and Joe De Felice of rural Wyoming, New York, are veterans in the battle against this ever-increasing pest. In their area, quackgrass has become the number one enemy of corn and profits. It can give corn a real fight for space and sunlight, but the deepest cut into corn profits comes from what quackgrass does underground.

Two Ways

A perennial that spreads and grows from both rhizomes and seeds, quackgrass puts out a massive root system that thrives on the high fertility of modern corn fields. The underground rhizomes, or stems, grow so quickly and densely that corn hardly has a chance. Where quackgrass gets a foothold, up to 5,500 pounds of these rhizomes have been found in just one acre!

Those nearly three tons of stems can soak up a lot of moisture and soil nutrients. With these stems producing new shoots that come through the soil at frequent intervals, the only way to control such a fierce competitor is to eliminate its underground growth.

Tillage Spreads

Farmers know that any form of tillage merely controls the seedlings while chopping up and redistributing the rhizomes to promote regrowth. They can tell you of that "mass of roots" quackgrass can produce, and how it can grow even after plowing and chemically treating the ground.

With 1,400 acres of cash crops... corn plus dry beans, hay and wheat... the De Felices try to increase yields any way they can.

"We sell a lot of high-moisture corn," comments Joe De Felice, "so our overall yield is hard to determine. Some of our corn runs over 100 bushels an acre. I know that growing quackgrass and corn together is not the easy way to get high yields."

He and his brother rely on the same corn herbicide to control quackgrass that they've used for weed control for years. The procedure last

year was a combination application of liquid fertilizer and 2½ pounds of AAtrex per acre about a week before plowing 250 acres where quackgrass was a problem.

Another 2½ pounds per acre of the chemical was applied after the corn was up. "This split application gave us good results," Joe says. "Oh, things started slow, and the grass began coming up. I began to worry, but it wasn't long before it died."

"Foams" away weeds

Accutrol is being introduced by Velsicol Chemical Corporation and consists of two basic parts: a special nozzle and spray adjuvant. The nozzle produces large droplets of air emulsion which resist the tendency to drift.

Ordinarily, large droplets do not provide maximum coverage because they do not fall close together as in a conventional fine-mist spray. The spray adjuvant compensates for this by causing the droplets to spread over the surface of the leaf of the plant, thereby increasing the area of contact. The adjuvant also reduces spray runoff by causing the chemical to stick to the target plant and to penetrate the waxy surface of the plant.

Like Foam

The nozzle and adjuvant create a spray mix resembling foam, although Velsicol is careful to point out that it isn't really a foam. It's a mixture of air and water and is called an "air emulsion."

"The difference between the air emulsion and foam," says Phil Nathan, Velsicol's product manager for Accutrol, "is that foam, as most people think of it, is thick and heavy and does not readily break apart. A heavy type of foam that does not flow would not be appropriate for agricultural spraying because the coverage would not be thorough enough. Accutrol flows readily, and rather resembles the froth on top of milk rather than the thick, heavy type of foam that comes out of a shaving cream can."

No-tillage cropping is increasing in his area and this system brings on weed (and soil insect) problems with continuous corn year after year. De Felice grew 105 acres of no-till corn last year, and he points out that "knocking the weeds and grass out" is the critical necessity in no-till production.

John D. Buckley, a custom applicator at Pavilion, New York, treated 12,000 acres of corn last year. Where farmers have a quackgrass problem, he recommends 2½ pounds of AAtrex plowed down with liquid fertilizer. Then he comes back with an equal amount as a pre-emergence treatment, except on no-till ground. Post-emerge works better there.

"We've found our best results on fields where we sprayed at least a week ahead of planting," he says.

W. B. Duke, weed control specialist at Cornell University, says, "To maintain optimum quackgrass control, a pre-plow application of AAtrex is needed." He recommends either a fall pre-plow application or one in spring, according to a farmer's tillage practices.

The 2 to 3 pounds per acre fall treatment should go on at least five days pre-plow, followed in the spring with a post-emergence application of 1 to 2 pounds AAtrex plus oil... after corn emerges and quack is 1 to 2 inches tall. When the pre-plow application is made in the spring,

the initial treatment can go on five to 14 days before plowing and the second treatment can be either before or just after the corn comes up.

Last year, Paul Helman of Waynesboro, Pennsylvania, experimented on a 42-acre field that had "solid quackgrass" on half of it. He tried plowing strips and using reduced and no-tillage on other strips. On the no-till, AAtrex went on pre-plant; on the conventional corn, it was applied pre-emergence.

"On one large no-till piece, I sprayed 3½ pounds of AAtrex to the acre early, the last of March. The weather was cool, but after two or three warm days I got a good kill. I now feel that if a man puts about 4 pounds on no-till early, he won't need a knock-down herbicide," he says.

On the plowed areas, Helman applied 2½ pounds and came back later with another 1½ pounds. He believes the spray worked better on the smoother no-till ground than on the rough plowed ground — Glenn Frederick.



Carl Helman

Vacations

(Continued from page 19)

pineapple cannery tour, and a circle tour of the island with stops at Sea Life Park and the Polynesian Cultural Center.

A few other attractions are the International Market Place, the Ala Moana Shopping Center (one of the world's largest), the Kodak Hula Show, the Hawaiian Village of Ulu Mau, and the Wax Museum. Also, we'll be there for Aloha Week to see the colorful pageants depicting the history of Polynesia and the South Pacific.

On Kauai, the Garden Isle, our hotel is situated on Kalapaki Beach, one of the finest in the islands. We will take a boat trip on the Wailua River to a beautiful fern grotto, while natives entertain us with songs and legends of the River and of Kauai.

Another day we see Waimea Canyon, "Grand Canyon of the Pacific," the Napali Cliffs and Valley of the Lost Tribes. Along the way we see fields of pineapple, acres of waving sugar cane, and field upon field of beautiful tropical flowers.

Reluctantly we say "Aloha" to Hawaii. Our tour agents will be glad to arrange a stopover (at no additional air fare) for anyone who wishes to spend some time on the West Coast before going home.

Both of these fine fall vacations are fully escorted tours, and you pay for practically everything when you buy your ticket. Our tour escort takes care of all arrangements — baggage handling, tipping, airline connections, and a hundred other little details, so you can just relax and enjoy every minute of your trip.

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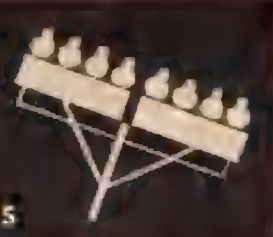
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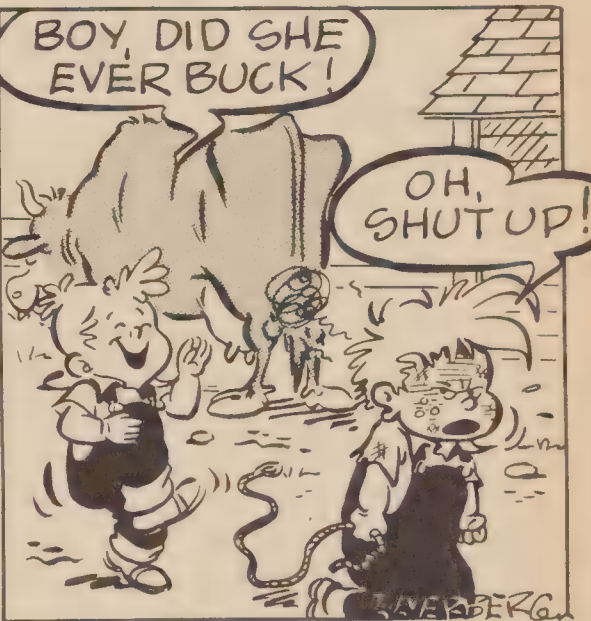
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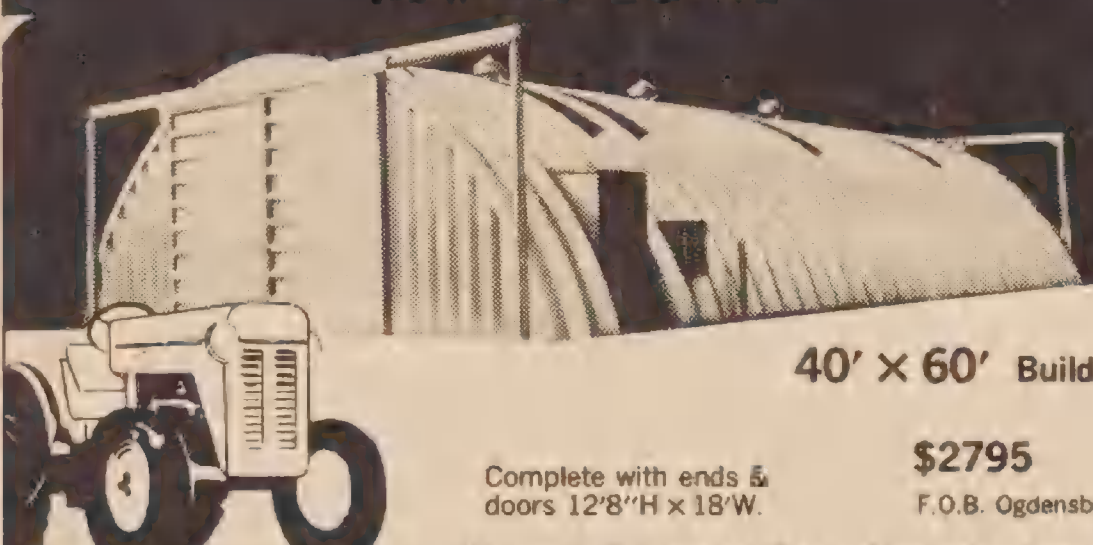
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The Song of the Lazy Farmer



Some folks think they can't live without some fancy drink they've heard about; when they are working up a sweat and need to get their whistles wet, they drink a glass of lemon juice or use their thirst as

an excuse to dump ice cubes into a pot and spoil some tea that should be hot. They open up a can of juice from some fruit that has seen abuse; tomato, grape or apricot, they try most anything that's not intended to be liquefied, I've even seen some birds who tried to make believe that man was born to drink the juice of rye or corn.

I s'pose each has got his taste, but it seems like an awful waste to bother with such fancy stuff when plain cold water is enough. Now there's a drink beyond compare, you find it almost ev'rywhere, you get it absolutely free, it's always cold as it can be. Whenever I want to quench my thirst I always hunt for water first; and that is not its only use, I never heard of a fruit juice in which a fish would stay alive or into which I'd want to dive. Yep, water's always good, by gosh, until it's time for me to wash.



AROUND ABOUT

Traditionally, a bale of hay was rectangular . . . until 1948, when Allis-Chalmers introduced its Roto-Baler, which turned out round bales and was a roaring success. A lot of people were curious about the round bales, though. Norman Ward, of Solon, Maine, found that some of these curious folks were tearing his round bales apart to see how they were made, so he placed four bales along the road with these signs.

In a few years, square bales became the "in thing" again, and production of the Roto-Baler was discontinued in 1962. Now round bales are making a comeback. So is the Allis-Chalmers Roto-Baler; there will be a production run this year. Sure hope Mr. Ward saved his signs!

Spy in the sky

CORNELL researchers and students are staying on top of weather developments in the Central New York area by using an Automatic Picture Receiving (APT) system to receive pictures of the earth's cloud cover from passing American satellites.

The receiving station, atop 179-foot Bradfield Hall at the New York State College of Agriculture and Life Sciences, is one of five within the State. There are several hundred scattered around the world.

"Cloud studies provide meteorologists with visible evidence of atmospheric motion fields and give a clue to weather developments," explain Professors Bernard Dethier and Warren Knapp, who direct the project at the Cornell station. "During winter, the satellites also document snow-covered land areas, as well as the amount of ice cover in lake and ocean areas."

Until the development of weather satellites, meteorologists were never able to see the storm around them for all the clouds, snow and rain; it was impossible to find much pattern in the masses that rolled overhead. "Meteorological satellites have literally lifted man above these cloud-watching problems," Dethier comments.

Although these pictures can't usually depict the intensity of local weather activity, their particular value lies in their ability to illustrate the weather situation in areas where there are no weather reporting facilities on the ground.

The satellite's night vision is dependent on infrared radiation. These invisible rays detect subtle temperature variations between the earth and its cloud cover. The cooler clouds appear white on the darkened, heated background of the earth.

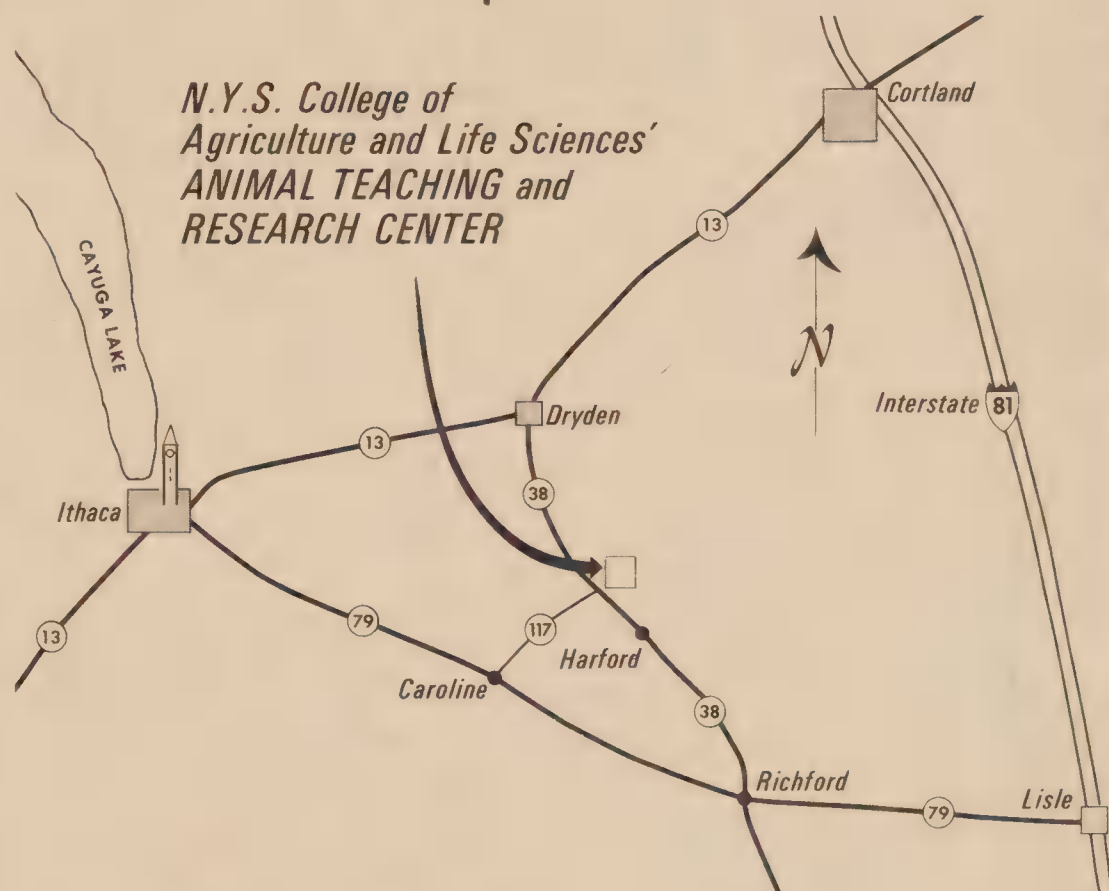
Cornell's APT system, which has been receiving photos since July of 1971, is a valuable teaching tool, as well as a research aid and public service. Students were involved in planning and constructing the antenna, and now assume a major responsibility for the satellite-station operation.

Support for the project came from the Regional Research Funds of the U.S. Department of Agriculture.

American Agriculturist, July, 1972

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Unadilla Silo Company, Inc.
Papec Machine Company
Castle Harvester Co., Inc.
The E. Biglow Company
Ribstone Silo of New York, Inc.
Berg Equipment Corp.
A. H. Hoffman, Inc.
Top Line Corporation
Eastern Artificial Insem. Coop., Inc.
Central Petroleum Company
King Const. Co.
Todd Hybrid Sales, Inc.
Babson Bros. Company
White Farm Equipment Co.
Oliver Farm Equipment Co.
United Rock Picker Co.
The DeLaval Separator Co.
DEKALB Ag Research, Inc.
Gehl Company
J. I. Case Co.
Corostone Silo Co., Inc.
Roto Salt Company, Inc.
Starline, Inc.
Allied Farm Equipment

The Stanford Seed Co.
Cushman Mid-Hudson Sales, Inc.
Universal Milking Machine Div.
Year-A-Round Cab Corp.
Farmhand, Inc.
Farm Credit Service
Grove Manufacturing Co.
Lamco Mfg. & Distributing Co.
Clay Equipment Corporation
William H. Posthill Co.
The F. E. Myers & Bro. Co.
International Stock Food Corp.
Fran Bogner
Anchor Laboratories, Inc.
Deutz Tractor Corp.
International Harvester Co.
Rockwell Springs Protection Co.
National Molasses Co.
Badger Northland, Inc.
S&S Distributors
A.S.&W. Products, Inc.
Pioneer Industries
Robson Quality Seeds, Inc.
Texas Refinery Corp.
P&D Mfg. Co., Inc.
Avco New Idea Farm Equip. Co.



Gayway Farm Notes

by HAROLD HAWLEY

MOVING UP TO FRONT

AND CENTER

For many months farmers across the nation have watched with interest and apprehension the tactics used by Cesar Chavez and his United Farm Workers in California, Arizona, and then Florida. Always the boycott was his ace and the one thing farmers feared.

Because farm labor was not covered under the National Labor Relations Act, which clearly makes secondary boycotts illegal as far as industrial labor is concerned and because of the special nature of agricultural production, there existed a need for special farm labor legislation. This would provide the ground rules under which farm labor could be organized, and how elections were to be run, and provide protection to both the producers and the general public from strikes and boycotts at harvest time.

Both at the national level and in many of the state annual meetings, Farm Bureau people spelled out the kind of legislation they felt was needed and that they would support. Kansas, Idaho, and Arizona state legislators have already passed such bills. Here in New York we were unable to muster enough support to get passage in the Assembly despite commendable efforts by our friends both in and out of the Legislature.

Along about the time the Arizona and New York bills were beginning to move, a national farm labor relations bill was getting attention in Congress. Mr. Chavez sent some of his personal representatives to tell Mr. Kuhfuss, AFBF president, that Farm Bureaus across the country must desist in their efforts to get such legislation or he would call for an all-out effort to discredit Farm Bureau as well as to boycott farm products. That's about where we are as this is being written. Naturally enough, efforts to pass legislation were stepped up in the face of his threats. No farmer is about to take that kind of challenge sitting down!

Meanwhile, the threat of secondary boycott continues to hang over American agriculture. So far as I can see, every commodity group can expect to face this threat sooner or later. Anyone who wants into this fight should feel free, because it's his fight anyhow.

It should be mentioned that this whole deal, starting way back with the first grape boycott in California, has served to do two things. It's helped all of us to identify our friends and our enemies. Here in New York we again found that the Council of Churches was no friend. For whatever reason, it was supporting Mr. Chavez in his opposition to the legislation many of us feel is so badly needed. Chavez can-

not go with a bill which calls for a secret ballot for workers or which outlaws a secondary boycott. How a church group could see eye-to-eye with him beats me. It's a great age we live in when a Presbyterian elder declares the Council of Churches to be one of the enemy—but I've said it and I'm glad!

The picketing of Farm Bureau headquarters and county offices has been of no consequence. It's when the crop is ripe and the boycott hits that we and everyone else will feel it. It's also when good, loyal employees are forced to join a union against their will in order to hold their jobs as has already happened that everyone will begin to understand what this fight is all about.

TAKE YOUR CHOICE

For years as the size and horsepower of tractors have increased, so too the size of the machines they pulled. Plows may be the most obvious example. Every manufacturer proclaimed that their new model was a full x-plow tractor and the race was on. It soon developed that weight and traction, as well as horsepower, were part of the ingredients determining how many plows a tractor could handle at the accepted and acceptable speed of 3½ to 4 mph.

Now comes the era of 125 to 150-hp brutes. What are they pulling? Generally speaking, the same number of bottoms as the 90 to 100-hp rigs of the last few years. The difference is they have plows with automatic resets and they travel at 5 mph or better.

The theory is simple. By not loading it up quite so heavy, a tractor can buzz right on through a wet spot or a steep place and can handle a tough assignment on a heavy sod. In good going, the extra power can be utilized by shifting up. The amount plowed per day with the various sized plows figures out about

the same because of the difference in rate of travel.

All of which leads me to raise a couple of questions. Even with resets, stones can and are occasionally hit at such an angle as to not trip the bottom. Under such conditions, 4 mph is too fast. It's a tribute to the construction of the plows that at 5 mph plus with an almost irresistible force up front, such a collision between plow and rock does not become an immediate disaster area. I guess all we are saying is that we really question whether 5 mph is, in fact, a safe and sensible speed to pull plows under some of our conditions. We are willing to learn but for now we lean toward an extra bottom at lower ground speed.

The second question that occurs has to do with the life of the moldboards, points, and shin pieces at high speed. It's no secret that drag shoes will last much longer if used at reasonable speed (whatever that is). One time we saw a match lit by merely holding it against a drag shoe that had been snatched along at about 5½ mph for a couple of hours. If the working parts of a plow do in fact wear out faster at high speed, seems as if it becomes a pretty expensive deal to pull a lighter load faster rather than a little more load at a more moderate rate.

Just to prove that we aren't quite convinced about the merit of the extra speed, let's look at the operator for a moment. Driving any tractor 25 percent faster than usual is a lot harder day's work than if the tractor were going at the slower rate.

These questions keep coming up as we consider the direction we should take when we make the next move toward more power.

IT'S SUCH A LITTLE THING

Here in America, where the old slogan for "a car in every garage" is already an understatement, it has for a much longer time been true that every kid grew up with a bike. It's still true with one little change . . . a motor has been added to a lot of bikes. These trail bikes are so versatile that one has no trouble understanding the enthusiasm shown for them.

As with every good thing that ever comes along, though, there are some who forget that responsibilities go along with pleasures. Because these bikes will go almost anywhere, they are ridden up and down hills that wouldn't be traveled much other-

wise. The result is the development of trails down slopes which, following a few rains, become gullies. I'm appalled at the washes and gullies we've seen in our area started, innocently enough, by kids riding up and down these hills with or without knowledge or permission of the owners. My reaction to their junkies across crop fields is exactly what you would expect!

Maybe these folks will need to get together and police themselves as the snowmobilers did so well around here last winter.

WHEN A BAG IS NOT A BAG

We've grown accustomed to expecting 80,000 kernels of seed corn rather than a bushel of seed. We've not yet learned to be happy to buy other commodities by the "bag" only to find that a bag is not a bushel but whatever the grower-packer put in it and labeled it. Of course, a bag of potatoes has for a long time been 50 pounds and not a bushel, but I got a jolt when grass seed came in 50-pound units.

I hate regulations worse than most but somehow or other it would be nice to have standardized units so that everyone would be talking and thinking alike.

ADJUSTMENTS

The wet weather this May created wet spots in many otherwise dry, well-drained fields. In former years, we used to bull through with the plows anyway, rutting and packing and destroying much chance of getting a crop. Later we took to skipping around such places, then going back to plow them later. This year we just went around them, forgot them until we were ready to plant, disced through and planted.

Lack of time forced the decision to do it this way and it may be the way we will do it if we get another year so very wet at plowing-planting time. It's the nearest we came to not-till this year, and in most cases it gave us a stand.

RECYCLING

Over the years a road here and there has been abandoned when traffic on it reached low enough levels and if no one lived along it. This made sense. So now what happens? People like the peace and quiet of the country and there is no better place to find it than down these former roads.

About the same time it occurs to someone that state aid for maintaining the road would equal or exceed what would actually be spent and here we go again. Clear back the brush, grade the road and ditches a little, and the road is back in business.

Of course, along about the time someone decided to restore that old house or to move in a trailer, the phone and power people were alerted to the need for service. As soon as the family got moved in, the school bus started traveling the old road again. Occasionally, the decision to re-open the road preceded the decisions by people to move in. Usually, folks want to live there and need a road and services. All in all, it leads to a lot of expense and suggests there must be a better way to locate people.

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Things break down at Gayway Farm, just as they do occasionally on every farm. Bruce Hawley works on a vacuum pump serving the milking system in the parlor below. Any two of these three pumps can operate the system . . . providing some back-up capability in case of breakdown.





BUREAU

SERVICE BUREAU CLAIMS
RECENTLY SETTLED

NEW YORK

Mrs. Joseph Kelly, Cameron Mills	\$ 2.20
(refund on order)	
Mrs. Grant D. Langdon, Copake	33.00
(refund on jackets)	
Mr. Millard Elmer, Georgetown	17.56
(refund on yarn)	
Mrs. Rose M. Jones, Little Falls	9.98
(refund on order)	
Mrs. Jacob Sanok, Jr., Goshen	1.00
(refund on order)	

PENNSYLVANIA

Miss Mabel Friese, Lewistown	8.00
(refund on order)	

MAINE

Mr. Leonard S. Charles, Biddeford	450.00
(refund on dog order)	
Mrs. Richard Burke, Sr., E. Lebanon	22.96
(refund on incomplete order)	
Mrs. Herman Warman, Houlton	195.00
(refund on order)	

NEW HAMPSHIRE

Mrs. Ethel Wright, Lancaster	5.54
(refund on coins)	

MASSACHUSETTS

Mr. George J. Risko, Westfield	8.98
(refund on book)	
Mr. Ralph H. Leland, Greenfield	2.00
(refund on labels)	

FLORIDA

Mr. Chas. W. Dunkel,	
St. Petersburg	6.04
(refund on subscription)	

NOT ALL THE FACTS

A farmer called our Service Bureau recently and commented that an insurance salesman had the day before sold him an endowment life insurance policy... at a price of \$60 per month for the next 12 years. The salesman had sold it on the basis of a \$128 per month income for the lifetime of the policyholder beginning at age 65. He had further stated that the premium costs could be deducted from the farmer's income for income tax purposes.

After the salesman had left, the farmer noted that there was one hooker about which the salesman had said nothing... the policy requires the payment to the company of a lump sum of \$18,000 at the date of retirement! He immediately stopped payment on the check he had given the salesman for the first payment, and called off the whole deal.

There are some lessons here:

1. An insurance company stands behind what the policy says in print, not what may be said (or left unsaid) by its salesman. The overwhelming majority of salesmen are ethical, but a few may... as this one apparently did... leave some important information out of his presentation.

2. No insurance policy can deliver magic... the concept of insurance is one of pooling the risks on a sound actuarial basis so that an individual is protected in case of unexpected events. Life insurance, of course, also has an element of investment.

If anyone promises you more from an insurance program than your common sense indicates is reasonable, then check the fine print of the policy very carefully... in fact, check it carefully in any case!

3. A life insurance annuity is one of the four commonly-used methods for financing self-employed retirement plans that qualify under the

American Agriculturist, July, 1972

so-called "Keogh Trust" law. Briefly, this allows self-employed people (such as farmers) to set aside money for their retirement and deduct this amount from their current income in calculating their income tax.

However, the Internal Revenue Service must formally approve the setup chosen, if income tax deductions are to be allowed... something which had not been done in the instance being reported. This being the case, the salesman could not be certain that the premium payments would qualify as deductions from taxable income.

The Keogh law offers some potential financial advantages to high-income farmers, but it should be thoroughly discussed with an attorney and accountant before starting any program of this kind.

MORE RESEARCH

"Enclosed is an ad I received in the mail. Is there any opportunity to make it worthwhile to send \$10.00 to National Opportunity Research Service? It sounds like World Field Research (I got stuck for \$10.00 there), don't you agree? Maybe the boys have moved from Long Island to New Jersey."

We have had a number of inquiries concerning this company, but we have little information. About six months ago, we wrote the Central New Jersey Better Business Bureau. They advised us that John Gallo is president of the company, but the company, at that time, had failed to supply them with enough information to develop a formal report.

We would advise caution.

ADDRESSES WANTED

Joseph H. Ruberto, whose last known address was East Jewett, New York.

Descendants of George and Mary Richardson, whose last known address was West Shefford, P.Q., Canada.

Descendants of Lewis Williams and Sarah Naap, Warrensborough, New York.

Descendants of Daniel Williams and Magdalen Langbergh, who lived in Irishbush, near Amsterdam, New York.

Bucky Houston, who lived in Mexico, Maine around 1917.

Clifton Pond, who was chaplain of Veterans Hospital, Monroe, New York.

Edward and Libbie Barnard Otter, who lived in Schenectady in the early 1900's.

Harry L. Danforth, who lived in Proctorsville, Vermont.

Keep Your
Policies Renewed

For it's a fact, based on 1971 records, that:

20 people were injured every second.

10,800,000 injured during the year.

114,000 accidentally killed.

1 person in 7 was hospitalized

from injury or sickness.

The average length of stay was

8.2 days at a cost of \$98.02 per day.

Motor vehicle accident no. 1 cause

of death for 55,000 lives and

2,000,000 disabled.

Home accidents caused -

4,000,000 people disabled.

26,500 deaths.

BENEFITS PAID

A friend's name may be in this list.

Glenn W. Nickerson, Sr., Scio, N.Y.	\$ 404.23	Walter S. Bliven, Schenectady, N.Y.	\$ 250.00
Stone flew from chopper—inj. eye		Limb fell—cut scalp	
Lynn G. Horton, Randolph, N.Y.	2442.51	Homer Chapin, Brier Hill, N.Y.	752.91
Thrown by cow—head, neck injuries		Bitten by rabid horse	
Pauline Bliss, Freedom, N.Y.	303.31	David Bartlett, Potsdam, N.Y.	185.22
Papering ceiling, fell—broke rib		Skidding tree—broke ankle	
James Sterzinger, Locke, N.Y.	1167.10	Floyd Hall, Sharon Springs, N.Y.	2035.00
Auto accident—head injury		Jacket caught in shaft—broke hip	
Todd Brown, Cato, N.Y.	1225.72	Daniel J. Murphy, Hector, N.Y.	1950.00
Fell out of hay mow—broke back		Rollled on by horse—broke leg	
Merle E. Cady, Sr., North Clymer, N.Y.	1392.59	Frank S. Luta, Bradford, N.Y.	577.85
Fell off roof—broke ankle		Kicked by cow—inj. knee	
Randy A. Weeks, Clymer, N.Y.	371.50	Rickie Lee Henry, Hornell, N.Y.	366.15
Using trampoline—broke arm		Thrown from tractor—broke finger	
Wilbur J. Vance, Beaver Dams, N.Y.	1304.89	Bertha Zaweski, Jamesport, N.Y.	225.02
Trampled by cow		Fell down stairs—injured back	
Marinus Rovers, Chazy, N.Y.	1440.00	Juanita M. Allis, Nichols, N.Y.	579.20
Fell from silo—broke leg		Slipped on leaves—broke arm	
Henry C. Murphy, Preble, N.Y.	800.00	Marion McEachron, Greenwich, N.Y.	555.40
Thrown from tractor—head injuries		Auto accident—neck injury	
John Gifford, Masonville, N.Y.	369.20	H. Hartson Bel, Walworth, N.Y.	667.00
Fell off truck—broke hand		Pick-up truck accident—inj. neck	
Alma A. Sion, Lawtons, N.Y.	2240.00	Harold C. Schultz, Walworth, N.Y.	549.51
Auto accident—broke ribs		Ladder slipped, fell—broke wrist	
Frederick C. Keast, Crown Point, N.Y.	734.94	Frank J. Conrad, North Java, N.Y.	425.18
Auto accident—broke arm		Kicked by cow—sprained ankle	

These folks carry several North American policies. The combination of protection gave them large benefits when needed.

Ralph H. Dresser, Batavia, N.Y.	333.91	Geraldine Seck, Sayre, Pa.	300.00
Fell on slippery rock—broke arm		Ladder slipped—broke feet	
William C. Sutton, Prattsville, N.Y.	1400.00	W. Harkness, Columbia Cross Rds., Pa.	180.56
Auto accident—loss of foot		Caught in barn cleaner—injured hand	
Blanche Steenburg, Jordanville, N.Y.	706.70	A. Luther Watt, Meadville, Pa.	665.32
Truck accident—broke ribs		Unplugging sink—burned eyes	
Clara D. Williams, Mohawk, N.Y.	1475.00	Walter Zaborowski, Wattsburg, Pa.	745.50
Kicked by cow—broke leg		Kicked by cow—broke arm	
Albert Barbalich, Watertown, N.Y.	739.26	Charles Morgan, Vineland, N.J.	889.97
Yanked off truck by cow—inj. back		Bicycle struck by car—broke leg	
Theodore Micek, Jr., Copenhagen, N.Y.	585.68	Arthur Roesch, Egg Harbor City, N.J.	459.92
Thrown by cow—injured ankle		Caught between belt, pulley—inj. hand	
Douglas A. Loucks, Sr., Canastota, N.Y.	326.43	Frank W. Potter, Jr., Allentown, N.J.	1200.00
Caught in beaters—broke arm		Motorcycle accident—injured leg	
Harry D. Lusk, Pittsford, N.Y.	417.14	Frank S. Brown, Rowe, Mass.	1000.00
Pushed by cow—inj. knee		Auto accident—broke ribs	
Janet Blencoe, Fort Plain, N.Y.	1598.55	Raymond Johnson, Keene, N.H.	1235.00
Auto accident—injured face, teeth		Fell into hole—inj. back	
Nelson M. Tower, Youngstown, N.Y.	132.84	Joseph J. Miller, Deceased, Wilton, N.H.	1800.00
Caught in PTO—cut elbow		Tractor accident—loss of life	
Albert Edwards, Sr., Deansboro, N.Y.	268.69	Blanche Quesnel, Whiting, Vt.	504.97
Knocked down by calf—inj. chest, legs		Pushing hay down chute—inj. back	
Francis Jones, Phoenix, N.Y.	728.92	Edgar Butterfield, Middlebury, Vt.	210.00
Auto accident—multiple cuts, bruises		Kicked by cow—broke rib	

NORTH AMERICAN ACCIDENT INSURANCE COMPANY

(In New York State)

NORTH AMERICAN COMPANY

FOR LIFE AND HEALTH INSURANCE (In Other States)

GENERAL OFFICES: CHICAGO, ILLINOIS

SAVINGS BANK BUILDING

ITHACA, NEW YORK



OPPOSES HORIZON

We are writing in the hope that you are one of the citizens concerned about the far-reaching implications of the sale to Horizon Corporation of 38 square miles of Colton forest lands within the official Adirondack Park boundary.

It is not only the present Colton residents losing community control to 30,000 seasonal residents, the loss of deer and wildlife habitat, the 10,000 septic tanks upstream of our drinking water, etc., but the simple fact that permission for Horizon to subdivide this land can be given only in flagrant defiance of the report of the Study Commission on the Future of the Adirondacks.

If Horizon wins approval for a gigantic subdivision Upstate, then there remains no legal barrier against bulldozers all over the Park, which is still only 39 percent in State ownership.

This is a bigger issue than free enterprise, destruction of irreplaceable forest lands that should be preserved for the benefit of future generations is wrong!

If you agree, please write to: Commissioner Henry L. Diamond, Department of Environmental Conservation, 50 Wolf Road, Albany, New York 12201. — *Mrs. Ferne Petty, Canton, New York.*

AG SOCIETIES

We were much interested in seeing in a recent issue the item about the New York State Agricultural Society. This is a fine article and it is good to know that you are promoting membership in the Society.

Also in your circulation area is the New Jersey Agricultural Society, founded in 1781, fifty years before the 1831 date you mention in connection with the New York Society. That we are still surviving might be indicated by the fact that at our annual dinner meeting on May 3, 1972 we fed 353 people, including our guest speaker, United States Secretary of Agriculture Earl L. Butz.

While not a statewide organization, the Philadelphia Society for Promoting Agriculture, founded in 1785, held a lively dinner on May 5. — *Phil Alampi, Secretary of Agriculture, Trenton, New Jersey.*

COON SOCKS

In a recent issue, there was an item about "coon-pestered sweet corn" which reminded me of our troubles.

At first, we tried putting lights in the corn, which helped for a short time. Then we tried running the radio all night... with the lights on too. It helped, but they are so smart it's hard to get the best of them!

Last season, they were ruining the corn as we didn't have the radio out there. We had quite a number of

ears still on the stalks which I wanted to save until they were ready to use. I puzzled over how to do it.

I decided to try using old nylon stockings slipped over the ears, and it worked. I cut the nylons into thirds... using the toe for one, and tying one of the ends of the other pieces.

Of course, this was just done in a family garden of a few rows of corn, but I felt elated that I had tricked the coons! — *Mrs. Marcus Ward, Orange, Massachusetts.*

PLEA FOR HELP

Last year, the war in East Pakistan made headlines across the world. The nine-month war... with its 3

million dead, 10 million refugees, 20 million disrupted... is now over. The new government of Bangladesh is trying to build from ashes.

I'm not a person who gets involved in causes easily. Frankly, I usually avoid them. But the plight of this rural, farming country has hooked me.

Although the headlines aren't there anymore, the struggle for life in Bangladesh continues. The entire country is destroyed. Leaders were executed by the West Pakistan army. A UNESCO official has told me that if the current national relief program beginning in the U.S. is successful, only 500,000 people will die in Bangladesh! Mostly children.

The Emergency Relief Fund, Inc. is trying to do something about the

problem through a people-to-people campaign. It is through accident that I became involved in the ERF, but it is through conviction that I am part of the Airlift of Understanding.

Anything you can do will help... please send funds to Emergency Relief Fund, Inc., Box 1776, Washington, D. C. 20013 — *Dayton Matlick, Editor of the Michigan Farmer.*

BIGGER CALF

I read with interest the article about a calf weighing 152 pounds at birth. We had one that weighed 175 pounds at birth. It was weighed on two different scales, so the weight is correct. — *John Baldauf, Delaney, New York.*



Keeping the farm going.

Carol Dugan's children will be the fifth generation of Dugans to farm in Kansas.

When this picture was taken, her husband was out in the fields sowing seed for winter wheat. He'd worked 18 hours the day

before. And he would work 18 hours the next.

Her chores include mowing the lawn with the little tractor. It really belongs to her father-in-law, and she mows his place, too.

"It came with a

Champion Spark Plug. I guess sometimes I wish it didn't run so well!"



Toledo, Ohio 43601

20 million people have switched to Champion Spark Plugs. This one didn't have to.

AUGUST 1972

American Agriculturist

and the
RURAL NEW YORKER



Agribusiness on review at:

NEW YORK STATE FAIR

August 29 – September 4

EMPIRE FARM DAYS

August 8, 10

How to field shell over 450 bushels of corn an hour ...without investing in a combine.

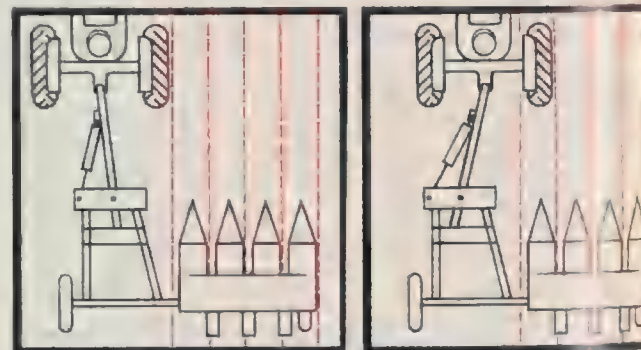


Up to now, the only way to shell that much corn in the field was with a self-propelled combine. Or a Uni-Sheller. But now there's the Supersheller! A 3-row (wide or narrow row) Superpicker with a big capacity, cage-type shelling mechanism that gives you 3-row combine capacity...at far less than a combine's price! What's more, the "seed corn gentle" shelling unit is switchable with the giant husking bed. Or, put it on your present 2-row pull Superpicker and transfer it if you move up to a 3-row model later on.

Corn belt tested for two full years, operated under the most severe conditions. One thing for sure: the new Superpicker and Supersheller have New Idea quality and performance all the way! See 'em at your New Idea dealer. He's "corn harvesting headquarters."



Coldwater, Ohio 45828



The Swingers All new 2- and 3-row pull Superpickers and SupersHELLERS are equipped with a swing hitch (cylinder optional) for effortless switching from ideal operating positions to transport. Saves time, easier, safer for highway travel and maneuvering around the farm.

There's a good idea behind every New Idea.

And it makes good sense to see your nearby New Idea dealer.

CONNECTICUT

TORRINGTON
Rawet-Sibley, Inc.
WALLINGFORD
Cooker's Equip. Co., Inc.

MASSACHUSETTS

WILLIAMSTOWN
Wilson Williams Co.

NEW HAMPSHIRE

WALPOLE
Pinnacleview Farm Equip., Inc.

NEW YORK

ALBION
Bentley Bros.
ALEXANDER
Alexander Garage
AMSTERDAM
Florida Implement Co., Inc.
AUBURN
Main & Pinckney

AVON

Avon Farm Equipment, Inc.
BAINBRIDGE
Bainbridge Tractor Sales, Inc.
BALDWINVILLE
R. C. Church & Sons, Inc.

BASOM

Bernard Howard

BLOSSVILLE

Jay's Sales and Service, Inc.

BURKE

Burke Farm Supply

BYRON

Byron Enterprises, Inc.

CANANDAIGUA

Coryn Farm Supplies

CANDOR

Ward & Van Scoy, Inc.

CATTARAUGUS

Denton Mosher

CHITTENANGO

Chittenango Farm Supply

CINCINNATUS

McKee Equipment Co.

CLINTON

Clinton Tractor & Implement Co., Inc.

CLYDE

Cestello Farm Service

CLYMER

Carlton Damcott

COBLESKILL

Harry Rubin & Son, Inc.

CORTLAND

Cain's Tractors & Implement, Inc.

DEPAUVILLE

Carl C. Fry, Inc.

DEPOSIT

Hinman Mills, Inc.

DE RUYTER

H. W. Cook Farm Service, Inc.

EAST AMHERST

Harvey H. Pfennig, Inc.

EAST PALMYRA

O'Meara Tractor, Inc.

EAST SPRINGFIELD

Homer Fassett

FILLMORE

Phillippi Pontiac Sales, Inc.

FORT PLAIN

Snyder Petroleum, Inc.

GENOA

Barnhart & Franklin

GILBERTSVILLE

Mussen, Fisher & Teed, Inc.

GOVERNOUR

Gouverneur Coop Assn., Inc.

GREENWICH

E. T. Briggs & Son

GROTON

Lawrence A. Parker

HAMMOND

Donald E. Robinson & Sons

HARPURSVILLE

E. E. Mathews & Son

HENRIETTA

John P. Maplin & Sons

HOLLAND

Lewis Machinery Service
Tri-County Supply

HORNELL

Thacher Bros.

INTERLAKEN

Interlaken Equipment Co., Inc.

JAMESTOWN

Kiantone Farm Supply

JAMESVILLE

Craner Tractor & Impl. Co.

JASPER

Bullock's Hardware

LEICESTER

A. R. Christiano Mdw. & Impl. Co., Inc.

LISBON

Geo. & Betty Kentner Farm Supplies

LOCKPORT

Taylor's Hardware

LOWVILLE

Foster Millard

MARTVILLE

Kyle Farm Machinery

MELLENVILLE

Tipple Equipment Co.

MELROSE

Calhoun Equipment Co., Inc.

MENDON

Saxby Implement Co.

MILLENTON

S. E. Kimball & Sons, Inc.

MONTOUR FALLS

Pleasant View Farms

MUNNSVILLE

Howard Landers

NEWFIELD

Rudolf Mazourek

NICHOLS

Thetga Farm Supply

NORTH COHOCTON

Robert Miller Co.

NORWICH

Chenango Ford Tractor, Inc.

ONEONTA

Oneonta Tractor Sales

PHELPS

Phelps Farm Service, Inc.

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OUR COVER

Earlier this year, considerable preparations for Empire Farm Days were made at the Cornell Research Farm near Dryden, New York... including the scene on our cover. Come August 8, 9, and 10, there will be plenty of corn for chopper demonstrations, as well as test plots for observation. Photo: New York State College of Agriculture and Life Sciences.



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What's NEW in the FIELD



by Bill Pardee

Organic preservatives

THIS fall you'll be hearing a great deal about organic acids as preservatives for high-moisture grain. With lots of late-planted corn, many farmers may find them coming in handy. To help you determine whether they fit on your farm, we've pulled together the following information, with strong assistance from agricultural engineer Joe Campbell, New York State College of Agriculture at Cornell University.

Big gain from these organic acids will be added flexibility in handling high-moisture corn. Propionic acid, either alone or in mixtures with acetic acid, can preserve grain up to 40 percent in moisture. And you can store acid-treated grain on barn floors or in open bins so long as you protect the grain from rain and snow.

One product, called ChemStor, a commercial mixture of propionic and acetic acids, will be on sale in the Northeast this fall, and other brands may also be available. ChemStor was widely tested last year, particularly in Pennsylvania, where over 200,000 bushels were treated. Results were excellent where proper procedures and rates were used. This checks with years of research and practical experience in Europe and Canada, where grain preservation with organic acids is common.

Comparison

Feeding results show acid-treated corn equal to or better than dry shelled corn and fully as good as high-moisture corn. Results compare favorably in all respects with high-moisture grain, stored in regular airtight facilities.

Both propionic and acetic are naturally-occurring acids produced in the gut during digestion by the animal. The amount used on treated grain isn't enough to affect digestion, since far larger amounts are regularly produced in the animal's stomach. It does have energy value, but treatment rates are too low to count in figuring rations.

Acid treatment won't differ much from drying in overall cost, but equipment for acid treatment will be cheaper than that needed for drying. And acid treatment will be handier than custom-drying since you can process corn as it's harvested, without taking it off the farm.

On the other hand, dried corn will be easier to sell to feed mills, grain markets or other buyers. Most cash grain producers will still want to dry their grain, but dairy and livestock feeders may find advantages in acid treatment.

Acid treatment also has advantages

over high-moisture corn stored in airtight silos. Big gain will be the reduced cost for storage structures. You can store acid-treated corn on a barn floor or in wooden bins, so long as you protect it from rain, snow and water seepage. You'll also avoid the need to feed out at regular rates, clear of the spoilage problem that requires feeders using high-moisture corn from silos to feed at least two inches off the top per day.

And acid-treated corn has better keeping quality after grinding than normal high-moisture corn. Acid-treated corn won't heat before feeding, unlike untreated high-moisture corn that heats and spoils quickly, and so must be fed within a few hours after grinding.

Other high-moisture grains, including wheat, oats and barley, can also be treated with organic acids to prevent spoilage. European studies have shown that this can be practical on a wide variety of feed grains.

Despite all these good features, long-range economics may favor permanent structures without treatment. Figured over 10-20 years, you may be ahead to build the storage and let grain ferment and treat itself as it does in normal silage fermentation. But before building expensive structures, push your pencil carefully and be sure you're going with high-moisture grain every year. With acid treatment it is far cheaper to get in and out.

Tips

If you're interested in using these acids to preserve grain, here are some practical tips. First, consider renting or leasing a commercial applicator the first year. These will cost about \$1,500, or rent for about \$20 per day. Renting will let you experiment with acid treatment for a year or two to be sure you like it. And since these machines are new, it's probable there'll be improvements in the next few years.

It's possible to rig up your own applicator, but rate and complete coverage of the grain is so important that a properly-designed commercial applicator is a must, at least until you're familiar with the practice.

Acetic and propionic acids preserve corn in much the same way acetic acid pickles cucumbers. It lowers the pH enough to sterilize the outside of the seed. It also kills the germ and any diseases lurking within. This prevents mold and bacteria growth, so that there's no heating or spoilage. But dead germs won't do in grain you intend to use for seed... something to consider be-

(Continued on page 10)



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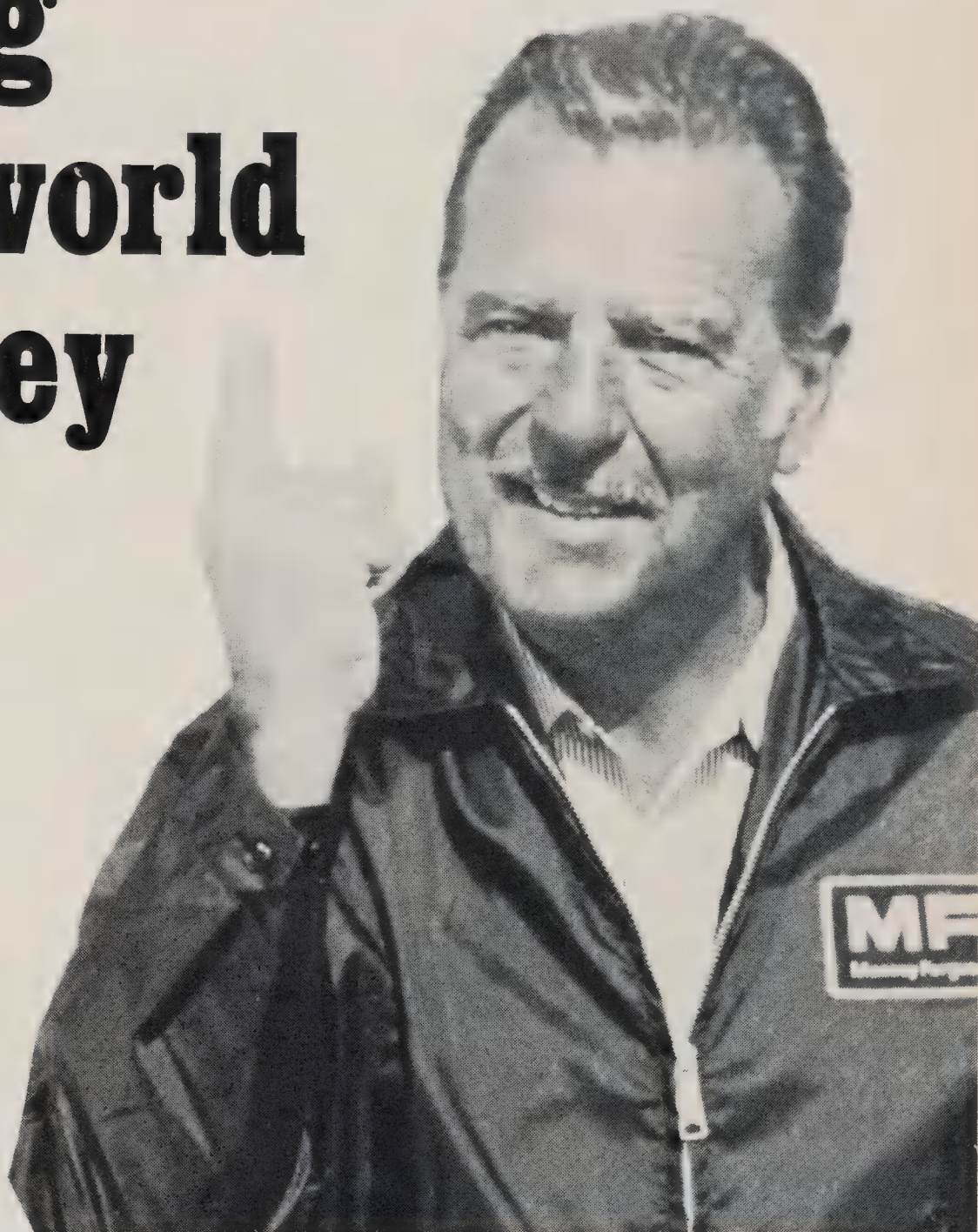
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Northeast FARM EXPERIENCE



Fritz Aude grows 30,000 pullets at a batch in this triple-tiered cage setup.

PULLET GROWER

Fritz Aude operates a farm on State Route 96A, south of Geneva, New York. One major enterprise is growing pullets in a high-rise house measuring 280×38 feet, big enough to start 30,000 chicks at a time in triple-decked cages suspended over a deep pit.

Droppings are unusually dry in the pit here... for two major reasons. Pullets naturally void dryer material than laying hens, and dropping boards under the two upper tiers of cages allow manure to dry considerably before being pushed into the pit once a month.

Timing

Cages measure 24×20 inches; chicks are started at 30 per cage, then moved at five weeks of age up or down to other cages so that there are 10 birds per cage. "If I split 'em up before five weeks," Fritz comments, "they can get out of the cages... if I wait very much after five weeks, they get too crowded." He kills two birds with one stone... er, achieves greater efficiency... by de-beaking at the same time the birds are split up at five weeks of age.

The pit is six feet deep from its concrete bottom to the house floor above... seven feet to the bottom of cages. Concrete curbs between support posts in the pit make clean-out easier.

Own Mill

In April of this year, Fritz began using his own Mix-Mill to prepare feed for the growing pullets. It's tied in with on-the-farm storage facilities for 40,000 bushels of grain... and a dryer setup. The 350-bushel batch dryer has a 20-hp "soft-start," single-phase electric motor.

There are quite a number of metal grain-storage structures here, and Fritz comments, "They have to be managed... can't just dry grain, put it in a tank, and forget it. Moisture can concentrate in one area through condensation caused by atmospheric temperature changes. We have to cool stored grain down in the early winter, and warm it up in the spring, by pulling outside air through it with an exhaust fan that can be moved from bin to bin."

The Audes operate 400 tillable acres of their own, and rent 150 more crop acres. Corn (370 acres) is the big-acreage crop.

Fertilizer

For corn, Fritz plows down muriate of potash at the rate of 70 to 80 pounds of potassium per acre... adds some starter fertilizer with the planter (20-70-20)... then sidedresses with anhydrous ammonia (100 pounds N per acre) after corn is up.

Tillage practices generally involve plowing, then once over with a culti-mulcher (cultipackers fore and aft, with a spring-tooth harrow in between), followed by a six-row planter. The culti-mulcher and planter are hooked in tandem... quite a "mule train," but it gets the job done in a hurry.

Fritz plants corn in rows 26 inches apart, believing he gets somewhat higher yields than he would with 30-inch rows. He uses dual rear wheels on the tractor, and comments, "Good flotation is important with the heavy equipment and sizable drawbar pulls required by modern farming practices." — G.L.C.

MAGIC WANDS

George Barden and son Larry of Candor, New York began using their new milking parlor in February of 1972. It's a six-stall (three on a side), side-opening arrangement where two men can milk 69 cows in 1½ hours (80 cows in the herd, including those dry).

Most of the "extra" jobs associated with milking are done by compressed air, or by vacuum. There are two doors from the building area... and another door through which cows go back to the free-stall area... operated by vacuum devices powered by the same pump that operates the milking system. Compressed-air devices open and close the gates of the milking stalls... this air provided by a compressor powered by a 1.5 hp motor.

Wands

Wands suspended from the ceiling are pushed aside by cows as they move through the parlor, and actuators at the upper ends of these

wands keep things moving. For instance, when a cow moves into the parlor, one back-scratching wand sets in motion the vacuum to close the holding-area door behind her... and also closes the prep-stall gate behind her.

The prep-stall is designed to wash her udder thoroughly just before she moves on to be milked. She stands a few seconds in the stall, then receives a 10-second wash from nine jets of detergent-laced water shooting up from the floor... next comes a 10-second rinse from the same place. All these timing intervals are programmed into the electronic brain of a control device, and can be varied considerably.

Two Stalls

There are two prep-stalls... one on each side of the double-three parlor... and each has its own high-pressure pump. "We tried using only one pump to develop the wallop needed to do a good job of cleaning up the udders," George comments, "but when both prep-stalls were operating at the same time, it was obvious that two pumps are necessary." One pump also provides the extra punch for hosing down the parlor between milkings.

Other ceiling-mounted wands control the opening of the exit door back into the free-stall area, and in general keep the flow of cow-traffic through the parlor operating smoothly without much human attention. These wands might seem like magic to someone uninitiated in the ways of modern farming, but to the Barden they're just another arrow in the bow of farmstead mechanization. Magic implies something for nothing... but the wands are far from that, costing about \$200 a throw (including the system accompanying each one).

Other Features

Other features of this automated parlor:

— Heating cables are embedded in the parlor floor, and a circulating hot-water heater overhead also keeps operators warm.

— A man-pass arrangement just outside the door from parlor to holding area saves a lot of time. Pipes are welded to guide cows toward the two doors into the parlor... and arranged so a man can slide through into the holding area without opening gates, stooping, bending or even taking a deep breath.

A cellar beside the parlor conveniently holds all the pumps and heat-

ing units that operate the parlor. Because soil here is a well-drained gravelly loam, there have been no water-accumulation problems in the cellar.

It's a parlor in tune with the times... using both positive air pressure and negative vacuum to move things along. The use of hydraulic power is growing by leaps and bounds in field equipment, and farmsteads are being automated by the same principle of power through a pipe. — G.L.C.

THE VERDANT HILLS

Over the years, anyone associated with agriculture learns that there are many approaches to making money in farming. Furthermore, a particular farm practice in favor at one time often becomes unpopular... but still may have the potential, when skillfully used, to generate high income.

A case in point involves dairyman Nick Tumilowicz of Norwich (Chenango County), New York. He rotates the dairy herd from one lush improved pasture to another... a technique for summer milk production not widely seen anymore in the Northeast, although it was highly popular only a couple of decades ago.

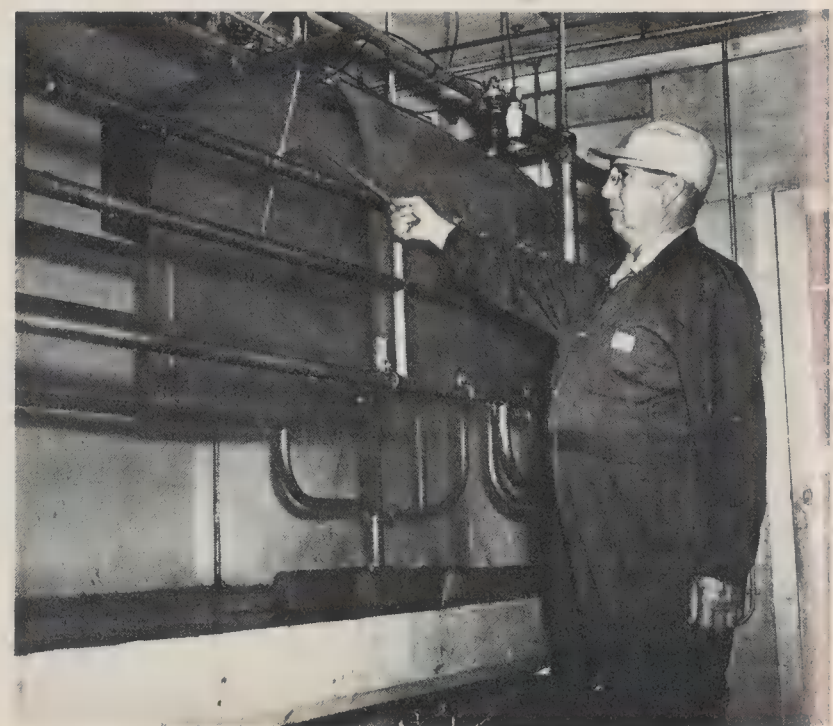
Nick has a colorful history including a hitch of seven years in the British Eighth Army during World War II... living in England, France, and Poland (he speaks five languages)... and worked as a machinist on Long Island. He came to his present farm from New York City 13 years ago.

"I fell in love with the rural countryside right off," Nick comments, "even though I had no farm experience."

Over the next few years after starting his new career, though, Nick learned a great deal about farming... and most of it the hard way. He learned that a side-delivery rake, for instance, is supposed to look as though it's going sideways... and that a mower sickle bar has not broken when it strikes an obstruction and trips backwards.

After 13 hard-working years, Nick and his family now enjoy a fully-remodeled home, a new barn, a huge pond near the house just right for swimming (and fishing), as well as 13 other ponds on the farm. Although Nick paid only \$10,000 for the real estate when he came here, the present figure would be many times

(Continued on next page)



George Barden pushes one of several wands that control sequence of operations in milking parlor. Note udder spray jets on floor are in operation.

that Mrs. Tumilowicz, who is paid well for her seamstress abilities, has supplemented family income . . . as well as filling the role of homemaker. There are three children, a girl 16 years of age, and boys aged 14 and 9.

From a start with 25 cows, Nick has moved up to 65 milkers on this 201-acre farm. He makes a practice of buying extra cows in the spring . . . milking them all summer as they "flush" on the excellent grass pastures . . . then selling them in the fall before stabling time.

The pastures support more than dairy cattle. Early in the morning, or in the cool of evening, deer can often be seen grazing on the sloping greensward. Looking across those verdant hills that have been so good to this first-generation American who was once literally a "man without a country," it's understandable why he finds farming and rural living so stimulating.

Would that more of us who take so many blessings for granted could live for a time in the clamor and tension of other places! — G.L.C.

HARMONIOUS PARTNERS

Donald Jensen and Lee Tichenor are partners in operating Lawnhurst Farms near Stanley (Ontario County), New York. They're brothers-in-law, started a formal partnership in 1961. Lee had been an employee on the Jensen farm for 13 years prior to that time.

"Don and I haven't had a serious disagreement in 24 years," Lee comments. "When there is work to be done, we both keep at it until it's completed."

Good Rules

Further conversation with Don and Lee reveals some other good rules for getting along:

— When minor disagreements arise, don't fight it out verbally under the heat of stress . . . postpone discussion until everyone's cooled down.

— Under no circumstances should an issue be avoided indefinitely, though. Lee comments, "We can't settle anything unless we talk to each other . . . talk it out, discuss the matter, give and take a little."

— The families live far enough apart (1 mile) to provide lots of elbow room, but get along well. Don has five children, Lee four.

There are 88 cows in the new 144×75-foot free-stall barn (115 stalls) . . . and the partners will have it at capacity by next year. Rubber mats on concrete form the stall floors, a thin coating of sawdust is applied on the mats for greater comfort and cleanliness.

Concrete Stalls

"We decided early to go with concrete stalls," Don comments. "Because we didn't like the foxholes some herds were digging in earth or gravel beds in some barns we visited." Mats measure 6 feet by 47 inches (stalls are each 4×7 feet); they are not anchored to the concrete, but have stayed in place. There are four electric lights over the feed bunk area, actuated by automatic electric eyes."

The partners feed a ration consisting of cornlage (25-30 pounds per

day), 17 pounds per cow of high-moisture shelled corn (HMSC), and haylage . . . plus one pound of soybean oil meal to supplement protein, and some mineral supplement sprinkled on the roughage flowing by on the belt.

Cornlage is put in the Harvestore silo at a stage when, if picked, shelled corn would come out of the field at 30-percent moisture. Haylage is fed twice a day by itself . . . cornlage, HMSC, and soybean supplement mixed together are also fed twice a day. No grain is fed in the double-six milking parlor.

The two partners operate the farm without additional help other than their families. Their ability to work smoothly together is a major key to the success of Lawnhurst Farms. — G.L.C.

FARM TRAVEL

Mr. and Mrs. Chester Lee of Dexter, New York, leave their dairy farm occasionally for a trip overseas. About six years ago, it was to India . . . and, more recently, to Italy.

Here are some of their comments about their latest visit:

"Possibly the chief deterrent to modern farming, which happily the bureaucracy seems to be aware of, is the 'old culture' idea of the importance of land ownership remaining in the family. The result is that land costs are far in excess of its economic value. This makes it difficult for a farmer to assemble at one place sufficient land to make a unit large enough for modern agriculture.

"Many of the parcels are fractions of an acre. Land reform laws have

been tried (by pressure of the local Communist party) without much success. The cooperative idea is being pushed by government grants and loans to set a pattern for improvement in size of an operating unit."

The Lees are enthusiastic about the marvelous climate of the Mediterranean area . . . as well as the history and culture of the places visited. They enjoyed the hospitality shown them, and appreciated exposure to the farmers who produce the food of Italy and Sicily.

Their trip was organized by Farmers and World Affairs of 101 North Seventh Street, Camden, New Jersey. The organization continues to look for farmers interested in participating in trips to visit other farmers of foreign nations.

To re-cut or not to re-cut? This is the answer.

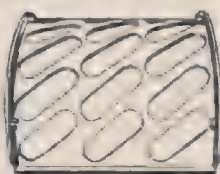
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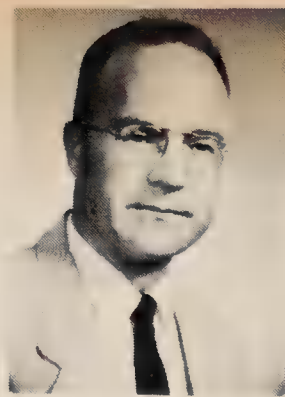
Be sure to see the full line of New Holland system mated forage-handling equipment.



See a demonstration at the EMPIRE FIELD DAYS. Be sure to register for the garden tractor drawing!

EDITORIALS

by GORDON CONKLIN



CLOSED MINDS, CLOSED DOORS

A popular shortcut to notoriety these days is to yell raunchy four-letter words at a Sunday-school picnic . . . or launch a diatribe against education at a PTA meeting. It is especially fashionable to be totally negative toward heretofore widely-esteemed symbols, institutions or customs . . . marriage, the flag, the church, or whatever.

Therefore, a voluminous report entitled, **Hard Tomatoes, Hard Times** . . . which attempts to discredit the land grant colleges . . . comes as no surprise. The report is published by an outfit called the Task Force on the Land Grant College Complex, Agribusiness Accountability Project. A suitable and convenient acronym, condensing both the report's title and its message, is HATE.

Its contention is that the land grant college complex is a complete failure because it is allegedly a captive of the agribusiness community . . . and is responsible for the technology undergirding the social and economic revolution that has brought massive change to the nation's rural areas. Summing up his myopic view of the situation, author Jim Hightower writes, "As statistics indicate, and as visits to the countryside make clear, rural America is crumbling. Not just the family farm, but every aspect of rural America is crumbling . . . schools, communities, churches, businesses, and way of life."

Riding grimly on, this modern Don Quixote skewers the windmill, "The greatest failing of land grant research is its total abdication of leadership. At a time when rural America desperately needs leadership, the land grant community has ducked behind the corporate skirt, mumbling apologetic words like 'progress,' 'efficiency,' and 'inevitability.' Overall, it is a pedantic and cowardly research system, and America is less for it."

Flailing at all parts of the land grant college system, the report's author lines up 4-H in his gunsights, "4-H receives the largest allocation of man years . . . a third of the total. This social club for youth exists as one of the sacred cows of the land grant world. The fact is that 4-H might be an adequate youth club, but it is not doing much that seriously promises to make a change in the rural plight. It is a frivolous diversion of 72 million dollars."

My mind wandered back, as I read that broadside, to the hundreds of 4-Hers with shining eyes whom I've seen accept awards . . . to the dozens of young people I've known personally who blossomed into capable leaders under 4-H guidance . . . to the countless volunteer 4-H workers I've visited with who devoted hours beyond measure to a task in which they deeply believed. I could no more sneer at these folks than I could curse life itself.

Special pains are taken in the report to roast the American Farm Bureau Federation at length (no mention is made of the NFO or National Farmers Union), to bitterly attack the Extension Service, and to climb all over the two most recent holders of the office of Secretary of Agriculture, Messrs. Hardin and Butz. The magazine, *Organic Farming and Gardening*, is quoted several times as documentation for the volleys fired at these folks.

My own background involves growing up on one of those hard-scrabble small farms which the report claims have been victimized by the land grant colleges. Quite to the contrary, my family (which would now be called poverty-stricken) always had respect for those colleges and both my brother and I found new oppor-

tunity and wider horizons in their classrooms and research facilities.

Later . . . as rural banker, county agent and farm magazine editor . . . I've visited hundreds of family farms from Maine's Aroostook County in the north down to Lancaster County in the Keystone State. These people, portrayed in HATE as being rendered virtual peasants by the Agricultural Establishment, have no resemblance whatsoever to that distorted image, and would display little sympathy for the irresponsible accusations contained in the report's vitriolic rhetoric.

As I read the report, I found myself wishing that the effort expended on it had been more responsible in purpose . . . exploring with some perspective the very real shortcomings of the land grant college system . . . rather than merely seeking to discredit it. HATE is massively guilty of the multiple levels of overkill so characteristic of our clamorous times . . . remember the farmer who had to clobber his mule with a 2x4 just to get his attention so he could feed him a carrot?

Perhaps most disappointing of all was the disclaimer by the HATE author, "But it is not the place of this Task Force to determine the agenda of the land grant complex." In common with so much of the protest of our time, bitter criticism is leveled without alternatives being presented . . . responsible people are totally condemned by hostile non-taxpayers operating from temporary headquarters located in the shifting sands of irresponsibility.

In normal times, the report would quickly be consigned to the oblivion it so richly deserves . . . but these are not normal times. Senator Adlai Stevenson III of Illinois, perhaps sensing some political hay to be made in the sinshine, decided to hold a Congressional hearing to air the charges made in HATE.

Folks, we've all picked bones of contention from time to time with our agricultural colleges, and with their research and extension programs. But a 155-mm howitzer is hardly the best tool with which to begin a remodeling job on your house . . . just as seeking to destroy an organization is not the logical first step to making constructive changes in its philosophies and procedures. Artificial insemination techniques were not developed after first destroying the bull . . . nor were teachers of the one-room schoolhouse burned at the stake in the process of conversion to centralized schools.

The land grant colleges have done a marvelous job over the years, in terms of agricultural abundance and human development, but they of course need to change and adapt to meet the new challenges that inevitably accompany the sweep of history. The overwhelming majority of farmers . . . and rural non-farmers . . . support the overall thrust of those colleges, although they may disagree at times with specific projects or procedures.

The HATE report led me to two inescapable conclusions:

—It was written and researched by people seeking to document a foregone conclusion . . . **closed minds** that did not want to be disturbed by a wide range of facts. The report is typical of research in the **legal** profession where a particular position is taken, then all available arguments are marshalled in favor of that position . . . in marked contrast to **scientific** research which reviews all the known facts **before** arriving at a conclusion.

—The author had obviously not visited north-eastern family farms, and was woefully lacking in first-hand contact with farmers generally. He

used carefully-selected statistics and statements by others (as you would expect of research in the legal profession), but had gathered little farm soil on his shoes from a wide range of personal visits . . . he had left too many doors to farm homes unopened.

Closed Minds, Closed Doors.

ROLLER COASTER

Heard a poultryman speak at a meeting the other day, and he was understandably bitter after experiencing two years of ruinously-low egg prices.

"Why not," he said, "look at other businesses and see how **they** handle surpluses. For instance, the doctors and lawyers have sort of a closed fraternity where the supply of their services is limited. Then, **they** use the profits from a protected business to start up farming operations . . . and then make money on their income tax by losing money in farming!"

"This meeting place," he went on, "was built by organized labor. The men working here drew big wages . . . even though there were hundreds of people out of work in the same area. No downward pressure on wage rates seems to be apparent, no matter how many people are unemployed . . . but get a few too many eggs, and blooey goes the price!"

Farmers can expect no help from the rest of society in organizing themselves . . . for every non-farmer has a vested interest in cheap food. Can farmers find the intestinal fortitude and organizational skill to effectively take advantage of their potentially enormous bargaining power . . . or must farmers accept their minority group status and live indefinitely with roller-coaster prices?

What do you think?

UFW vs AFBF

The United Farm Workers National Union has taken on the Farm Bureau in a national confrontation stemming from Farm Bureau's efforts to get labor legislation that would guarantee workers the right of secret ballot, and forbid the secondary boycott.

Cesar Chavez, the godfather of the UFW, argues that farm workers "don't have sufficient understanding of democratic traditions and systems to vote for themselves." Thus, the UFW forces farm employers to deliver their workers to the union by pressuring growers with a secondary boycott . . . picketing stores selling whatever farm commodity is the target of the moment.

The Farm Bureau understandably claims that farm workers should have the right to a secret ballot in choosing the organization to represent them, and that secondary boycotts are like war . . . never proving who is **right**, but merely who **survives** the confrontation. It's one of the ironies of our time that the Liberal Establishment . . . supposedly committed to individual freedom and non-violent persuasion . . . finds itself in the thick of fighting the secret ballot, and promoting the boycott!

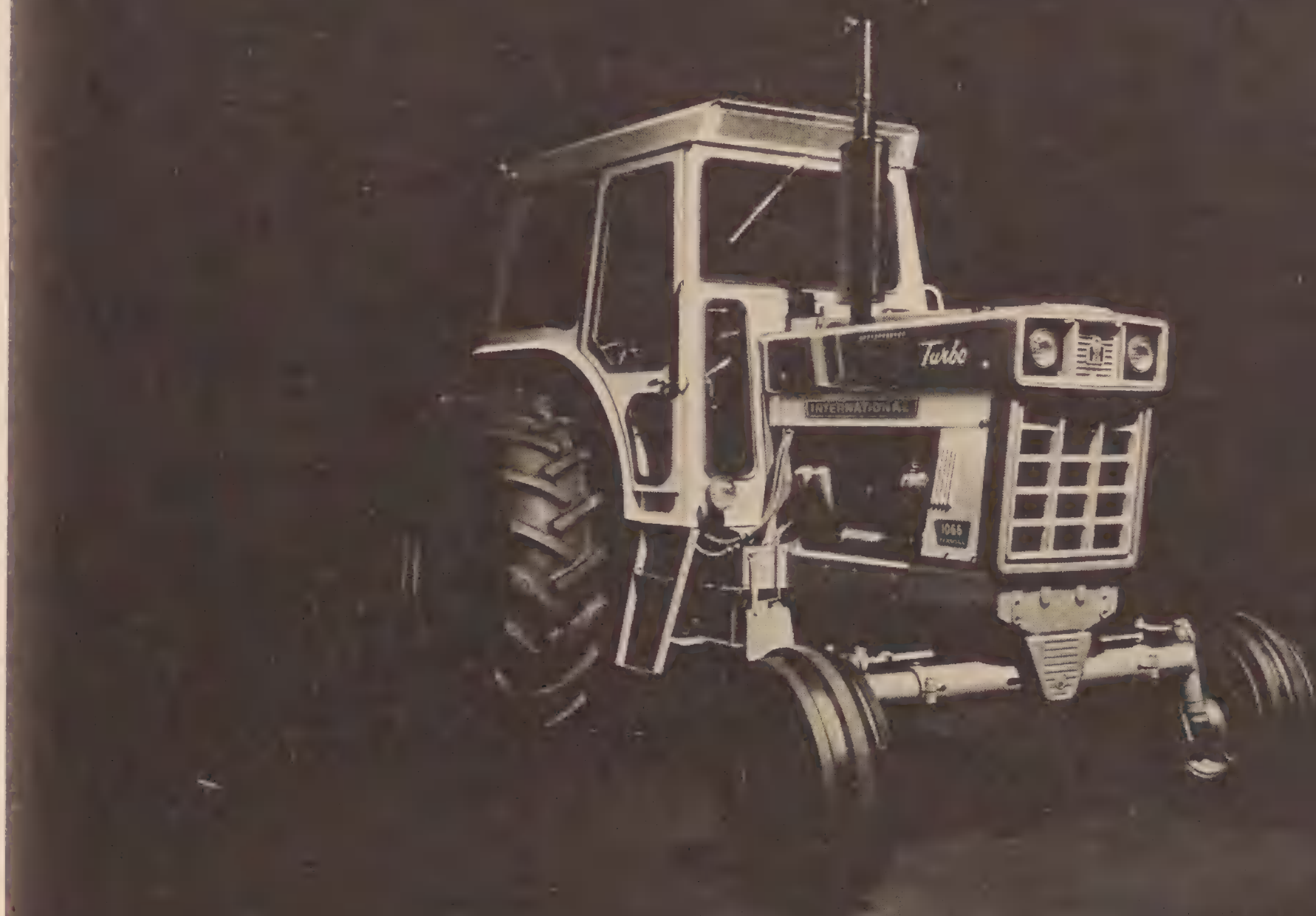
The UFW's ultimatum to the Farm Bureau threatened a nationwide campaign to attack and discredit the farmers' organization . . . unless Farm Bureau ceased to press for labor legislation calling for the same provisions (as regards secret ballots and secondary boycotts) already applying to all non-agricultural organized labor.

Passage of proposed federal legislation, usually referred to as the "Farm Labor Relations Bill" is vitally important to all farmers, whether hiring seasonal laborers or not!

GUEST EDITORIAL

"A collision course has developed gradually between fulfillment of the basic needs of people and the enhancement of the environment in which they live."—Dr. Russell E. Larson, Dean of the College of Agriculture at The Pennsylvania State University.

American Agriculturist, August, 1972



The right questions to ask your dealer before you buy a new tractor:

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fore using organic acids on wheat or oats.

Propionic acid is a better fungicide than acetic, while acetic acid is a better bactericide. Though somewhat less effective, acetic acid is lower in cost. Therefore, mixtures high in acetic will be cheaper than straight propionic acid, but you'll have to use more of them. Prices for products on the market this fall range around 24 cents per pound or about \$2 per gallon.

How to Treat

Big key to success is the applicator. All kernels must be covered thoroughly with acid or you'll get spoilage. This takes care and skill. The wetter your grain and the longer you plan to store it, the more acid you'll need to put on.

Treatment rates depend on grain moisture and length of storage planned. A small amount of acid can keep grain for a couple of months, but you'll need more to keep it a year. Treat on the high side the first time to be sure you're getting on enough. Most farmers have had good luck, but where troubles have developed, it's been from insufficient acid.

Handbooks that come with the applicators give adjustment instructions, but you'll need to measure both your grain moisture and the rate of flow through your applicator yourself. Be sure to measure your grain moisture accurately. If you don't have a moisture meter of your own, check with your local feed store. The only way to determine the rate of grain flowing through your machine is to measure it. This can vary from day to day (even between corn from different fields), depending on the moisture of the corn, size of kernels and rate of application.

Measuring

Here's a quick way to measure this "flow-through" rate. First, start grain moving through your applicator, treating corn as it goes. Check your grain flow rate by passing a known quantity of grain, say 100 pounds, through the applicator and checking the time in seconds it takes to go through. You can then determine the "through-put" in tons per hour by the following formula, where T is the time in seconds it took for the 100 pounds of grain to be treated.

$$\text{Tons per hour} = \frac{180}{T}$$

Once the tons per hour are known, you can go to tables supplied with



"This meat is all from your steers. I'll bet you didn't realize how valuable they were."

the machine to get the application rate for the specific moisture level of your grain.

You can treat high-moisture ground ear corn just as well as you can grain. Just determine the moisture, figure your through-put, then check your table. Normally the cob carries more moisture than the ear, so ground ear corn will be several percent wetter than shelled corn.

Knowing the moisture of your corn is more critical with organic acids than it is in drying. Overtreating won't hurt, but undertreating could cause you to lose the whole batch.

Rates will vary from 2.4 gallons per ton of corn at 22-percent moisture up to 4.8 gallons per ton at 40-percent moisture. This will put

acid costs at \$4.80 to \$9.60 per ton of grain.

Hit It All

In treating the corn, it's important to be sure that all the grain gets treated. Don't let the chemical run out or corn move through erratically. Avoid untreated pockets in the grain or you'll get hot spots that will spoil.

Organic acids like propionic and acetic are corrosive, so don't store treated corn in galvanized bins unless they're lined with polyethylene plastic or rubber acetate paint. Wooden bins in existing structures work fine. Whatever the structure, it's a must to keep out moisture seepage, so cover floors with plastic sheets before putting on corn. Any posts or other metal items that will

come in contact with the corn should also be covered with plastic.

Wood is not corroded by the acid, so planks, plywood, or other wooden materials make fine sides for bins. At Cornell, Professor John Miller stored treated corn in open bins and on the barn floor for two years, despite grain moisture levels above 30 percent. Throughout this time, the corn maintained high feeding quality and excellent acceptability to animals.

Watertight

Rain, snow or water from any source will dilute the acid, wash it off the kernels, and lead to spoilage. Check windows and walls to be sure that they are watertight.

Grain treated with propionic acid

normally hits a pH or acidity level of about 4.0. This won't affect your augers and feeding equipment any more than high-moisture corn, since untreated high-moisture corn and silage hit about the same level. However, this can pit uncovered galvanized bins and concrete.

Organic acids can be irritating to eyes and skin so handle them with care. Apply them in a well-ventilated area. Best place to set up the applicator is out of doors. Treat the corn outside, then run it into the storage area. Don't let the liquid or vapor get in your eyes or on your skin or clothes. Like many acids, propionic and acetic acids can eat holes in your clothes and burn your hide. Have water available to wash spills off your skin immediately. Small

amounts of chemical won't make serious burns, but they are uncomfortable.

We'll need lots of on-farm experience to tell just where organic acids are most profitable. However, it looks now as if they'll fit best in temporary or emergency storage. If you plan to store high-moisture corn each year for years to come, you'll probably be ahead to put up silos that can preserve it without treatment. The best place for acid treatment may be in handling extra grain from bumper crops. Acids may also help if you'd like to try high-moisture corn without making the heavy investment for long-term storage structures.

In considering whether or not to treat your high-moisture grain, be

sure to figure in whether you plan to feed it or sell it. At present, there is no market for corn treated with these organic acids. Elevators and feed stores won't want to mix high-moisture treated corn with normal dry shelled grain. You may be able to sell treated high-moisture grain to your neighbors, but you'd better check before you treat to be sure you have a market.

Acid treatment of high-moisture grain can add flexibility in grain storing and feeding on Northeast farms. It's a proven practice that has worked in Europe and Canada and looks good here. If you have high-moisture corn beyond what you can store in permanent structures, you may want to give organic acids a try this fall.

Food For The Spirit



by Robert L. Clingan

"No other gods," says the first of the Ten Commandments. "You shall have no other gods before me." This is followed by a prohibition against idolatrous forms called "graven images," and the requirement that the very name of God is to be kept sacred and used in reverence . . . "Thou shalt not use the name of the Lord thy God in vain."

A psychiatrist on a recent TV panel talk show declared that the man without any religion is more subject to hangups than the religious man. By religion, he was not referring to ethics . . . which he characterized as the outer shell and the consequence of religion . . . but to something more basic. He defined this basic aspect of religion as the commitment of a person to some reality larger and greater than himself. We who belong to the Christian religion call that reality "God."

Center

The Ten Commandments start at the very center of things, not with rules of conduct or goals for living, but with **commitment** to the reality of God. You start there, with that central personal commitment, then proceed in the right direction to form the moral code by which you try to live.

The right reasons for even having a moral code stem from an understanding of our commitment to God. We are encouraged to try to live by the best rules in life we know, because the God who requires so much has given us power to fulfill that to which he has called us.

When we fail, as we occasionally must, we know Him to be forgiving, know that He can and will restore our broken relationships to Him, to each other, and to our own deeper selves. He is the God who commands. He is the God who promises. He is the God who restores. Demanding, promising, forgiving, restoring . . . that is our God.

Thought Small

At the time the Ten Commandments were first given, there were many people who committed themselves to something less than God. They worshipped deities associated with the stars, with nature and the seasons, with images they made with their own hands. This was idolatry . . . giving to something less than God the kind of commitment and devotion that belong only to Him.

Today, we are still tempted to commit ourselves to something less than God, or to make no commitments at all. The modern idols can be self, money, fame . . . even our nation, when it stands at the top of our hierarchy of values and not even God ranks above it.

All these less-than-God idols are of our own making, choosing and serving . . . and they will betray us. They are not enough.

Roofing & Siding Report from the Field...No. 1

Onduline looks good on paper... it's even better on a barn



Onduline roof with matching PVC skylights on a 14-stall horse barn built by Empire Farmbarns, Ithaca, N. Y., for Charles and Judy Clarke, who run a thoroughbred breeding farm with stud services at Hidden Acres Farm, W. Danby, N. Y.

Charles and Judy Clarke say:

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Richard A. Perry says:

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NEW YORK STATE FAIR

Schedule of Events
August 29-September 4

Tuesday, August 29

A.M.
8:00 Forage and Grain Judging
Sheep Judging—Wether Show
8:30 Youth Livestock Judging
9:30 Youth Dairy Judging Contest
NYS High School Marching
Band Competition—until 4:00
p.m.
10:00 Judging Fruit and Farm Prod-
ucts
4-H Sheep Show
Judging On-Foot Carcass Bar-
rows
10:30 Opening Day Ceremonies
Judging Market Barrows
11:00 Entertainment — Blackwood
Brothers, People Tree. Also
at 1:30 and 6:30 p.m. Three
times daily through Saturday
11:30 Flower Show Judging. Also
Thursday, Saturday, Sunday and
Monday

P.M.
1:00 Horse Stakes: Open Western
Pleasure Horse; Stock Western;
Arabian English Pleasure; Half
Arabian Costume
4-H Swine Show
1:30 NYS Spelling Bee
3:00 Entertainment—Sonny and Cher
Show. Also at 8:00 p.m., and on
Wednesday
Royal Canadian Mounted Police
Musical Ride, also at 8:00 p.m.
(Daily Show)
4:00 Carcass Steer On-Foot Placing
4:30 Miller-Johnson Trained Animal
Circus. Also 8:00 p.m., and 1:00,
4:30 and 8:00 p.m. on Wednesday
6:00 Written Exam for Beef, Swine
and Sheep Showmanship Contest
6:30 Sheep Blocking and Trimming
Contest
7:00 NYS Pleasure Horse Champion-
ship; Quarter Horse Reining
Stake and Championship
7:30 Jack Kochman Auto Thrill Show.
Daily at various times

Wednesday, August 30

A.M.
8:00 Judging Guernsey, Brown Swiss
and Milking Shorthorn
Sheep Judging—Hampshire
9:00 Sheep Judging — Corriedale,
Suffolk
9:30 Horse Pulling Eliminations—
until 3:00 p.m.
10:00 Judging Open Steer Classes
Dairy Goat Judging
Women's Day Coffee Hour

P.M.
12:30 Swine Judging—Duroc
Women's Day Luncheon
1:00 Hereford Judging
Sheep Judging—Rambouillet,
Southdown
3:00 Swine Judging—Poland
7:30 Sheep Judging—Dorset, Colum-
bia
Swine Judging—Chester White
Square Dance Festival

Thursday, August 31

A.M.
8:00 Sheep Judging—Berkshire

Cattle Judging—Ayrshire, Jersey
Judging Charolais Breeding
Classes

9:00 Sheep Judging — Hampshire,
Cheviot
10:30 Swine Judging—Yorkshire
11:30 NYS Sire Races, Trotters and
Pacers—to 4:30 p.m.
P.M.
1:00 Sheep Judging—Oxford, Shrop-
shire
NYS Purebred Dairy Cattle As-
sociation Calf Presentations
Angus Judging
1:30 Holstein Judging—Also Male
Championship
3:00 Sheep Judging—Tunis
Entertainment—Wayne Newton
Show. Also at 8:00 p.m., and on
Friday
5:15 Horse Show—5-Gaited Saddle
Horse Open; Amateur Owner
Hunter Appointment

Friday, September 1

A.M.
8:00 Judging Holsteins
Judging Shorthorn Breeding
Classes
P.M.
1:00 Champion Beef Carcass and
Quality Meat Auction
4:30 Horse Show — Open Jumper
P.H.A.

Saturday, September 2

A.M.
8:15 Horse Show—3-Gaited Jr. or
Novice
10:00 Dairy Goat Milking Contest
P.M.
3:00 Entertainment — Jim Nabors
Show. Also 8:00 p.m., and at
4:00 and 8:00 p.m. Sunday
6:15 Horse Show — Open Jumper
Stake Table II, Section 2

Sunday, September 3

A.M.
9:00 Judging Historic Automobile
Exhibit—until 4:00 p.m.
10:30 Entertainment—Speer Family,
People Tree. Also 1:30 and 6:30
p.m., and on Monday
P.M.
3:00 State Fair Pauses Before God
Grand Concourse d'Elegance
5:00 Horse Show—Parade of Cham-
pions

Monday, September 4

A.M.
9:00 Champion Stock Car Races—
until 5:00 p.m.
P.M.
12:30 Horse Show—Working Hunter
Stake
3:00 Entertainment—Country West-
ern Show with Sonny James,
Bill Anderson, Jeannie C. Riley,
Gordie Tapp, Archie Campbell.
Also at 8:00 p.m.
6:00 Horse Show—Open Jumper Stake
Table II, Section 3

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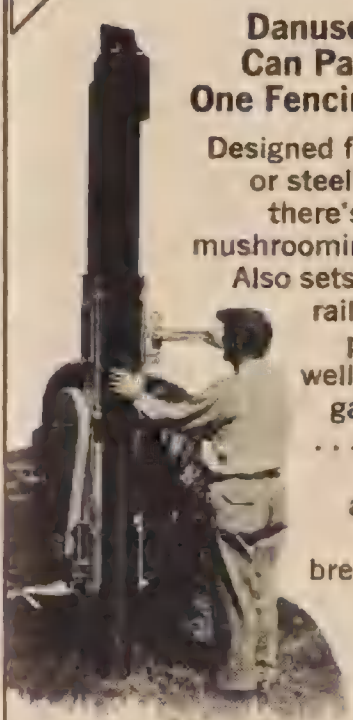
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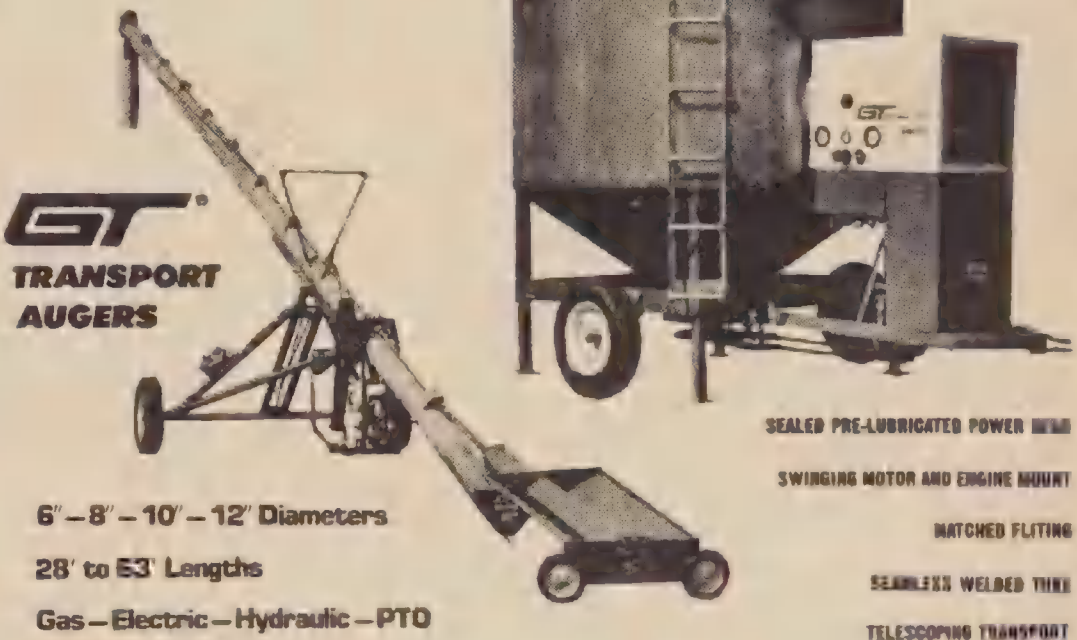
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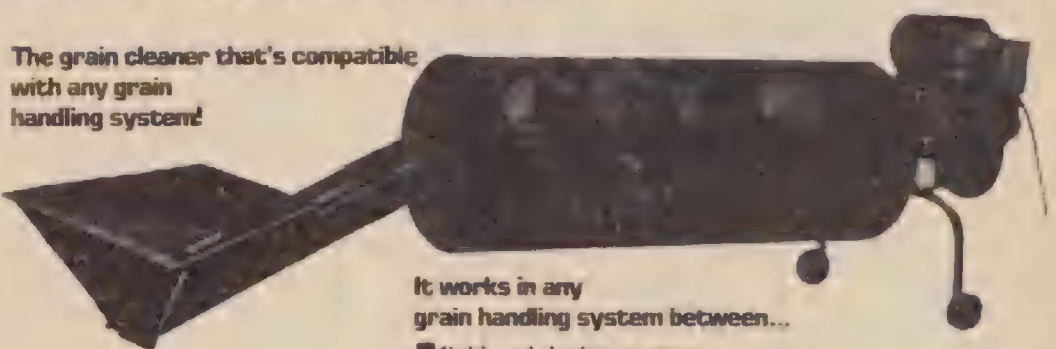
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Dates to Remember

Aug. 4-5 - Vermont Maplerama, Bennington, Vt.

Aug. 4-5 - Northern New York Agricultural Historical Society Craft Fair, at Museum on Rt. 180, Stone Mills, N.Y.

Aug. 4-6 - Eight-County Arts and Crafts Show, Fairgrounds, Walton, N.Y. Sponsored by South Central New York Resource Conservation and Development Project.

Aug. 5 - NYS Junior Guernsey Meeting and Field Day, High Meadows Farm, Lafayette, N.Y.

Aug. 5 - Annual Sauerkraut Festival, Phelps, N.Y.

Aug. 8-10 - Empire Farm Days, Cornell Animal Science Teaching and Research Center, off Rt. 38, south of Dryden, N.Y.

Aug. 9 - Plant Science Day, Lockwood Farm, Hamden, Conn.

Aug. 9-12 - Annual Convention American Junior Quarter Horse Association, Amarillo, Texas

Aug. 9-12 - Annual Meeting Eastern Apicultural Society, University of Connecticut, Storrs, Conn.

Aug. 11-13 - NYS Woodsmen's Field Days, Fairgrounds, Boonville, N.Y.

Aug. 15-19 - 3rd Annual Beef Shorthorn Show, Fairgrounds, Sandy Creek, N.Y. Judging on Aug. 18

Aug. 16-18 - National Christmas Tree Growers Convention, Corvallis, Oregon

Aug. 18-19 - Lumberjack Roundup, Killington, Vt.

Aug. 20-23 - Annual Convention National Association of Artificial Breeders, Arlington Park Towers, Arlington Heights, Ill.

Aug. 22-23 - Maine Farm Days, Fairfield Center, Maine

Aug. 22-25 - Poultry and Egg Institute of America Production and Marketing Conferences, Hotel Muehlebach, Kansas City, Mo.

Aug. 25 - Blueberry Festival, Union, Maine

Aug. 26-27 - Corn Festival, Skowhegan, Maine

Aug. 29-Sept. 4 - New York State Fair, Syracuse, N.Y.

Aug. 30-31 - Agricultural Progress Field Days and State Plowing Contest, Will and Croner Farms, near Berlin, Somerset County, Pa.

Sept. 7 - Cornell Corn Field Day, Aurora, N.Y.

Sept. 8-9 - Annual Hammond 4-H and FFA Fair, Fairgrounds, Hammond, N.Y.

Sept. 11-12 - Vegetable Variety Field Days, Cornell University, Ithaca, N.Y.

Sept. 11-17 - Farmfest, featuring World Ploughing Contest, Vernon Center, Minn.

Sept. 15-17 - 10th Annual Meeting NYS Poultry Industry Coordinated Effort (SPICE), Edgewood Resort Hotel, Alexandria Bay, N.Y.

Sept. 15-24 - Eastern States Exposition, West Springfield, Mass.

Sept. 19-22 - NEPPCO Convention and Exposition, Concord Hotel, Kiamesha Lake, N.Y.

Sept. 23 - Pennsylvania State Holstein Show, Farm Show Building, Harrisburg, Pa.

Misery is pediculosis

ENTOMOLOGISTS at Cornell's College of Agriculture and Life Sciences are most likely to be concerned with insects attacking farm crops, trees, or ornamentals. Lately, though, an insect long associated very intimately with man has become a growing problem... and Professors Art Muka and George Gyrisco recently sent AMERICAN AGRICULTURIST information on human lice.

The state of being infected with lice is called pediculosis. Modern life styles, particularly among younger people, have brought the louse back to its former prominence as a plague of mankind.

Long (and seldom washed) hair... plus lowered priorities attached to sanitation... have conspired to put the little critters back on the skin where they can be very irritating. Human lice can also be the carriers of typhus, trench fever, and relapsing fever.

Two Baddies

The two critters causing most of the trouble, report Muka and Gyrisco, are scientifically monickered with unpronounceable Latin names, but to you and me they're the head louse and the crab louse.

Since that latter bad actor has traditionally been associated with houses of ill-repute, the whole business of lice on humans has become a "no-no" for polite conversation. Changing standards of sexual morality among young people have created a roaring epidemic of venereal disease, as well as a spreading plague of crab lice.

Crab lice, unlike head and body lice, are seldom spread by other than close contact of infected and uninfected individuals. On the other hand, head and body lice wander rapidly and quickly from person to person.

According to the experts, the simplest method of eradication is to clip the hair, then apply one of sev-

eral available shampoos. Doctors are acquainted with the problem, and can advise appropriate treatment. If hair styles are more important to an infected individual than elimination of the problem, take comfort in the fact that he or she will get a lot of healthful exercise scratching and digging!

Changing customs and habits of living bring new problems... as well as recreating old problems... for mankind. The World War I dough-boy, beset as he was by the teeming "cooties" of the trenches, would feel right at home in a society where lice are suddenly becoming a real problem. C'est la vie! — G.L.C.

Book Review

THE COMPLETE GUIDE TO BEEKEEPING

by Roger A. Morse

This practical guide is designed for beekeepers... and prospective beekeepers... throughout the United States.

The author, a professor of apiculture at Cornell University, offers full instructions on how to begin an apiary, including advice on appropriate sites (even a Los Angeles or New York City rooftop can support a hive or two), equipment, obtaining bees, feeding, swarm control, maintenance, honey extracting, information on predators, diseases and requeening, pollination, and the biology of the honeybee.

Written in crisp, non-technical language, this comprehensive handbook will prove invaluable to both the professional and the amateur beekeeper.

Available from E.P. Dutton & Co., Inc., 201 Park Avenue South, New York, New York 10003. Price \$6.95; add local sales tax, plus 30 cents for postage and handling.

The Song of the Lazy Farmer

The folks I feel most sorry for are those who think St. Peter's score for them is based on work they've done and how well they've avoided fun. They figure that the pearly gates



will never swing for those whose traits include a tendency to smile, they think enjoyment's out of style. To hear them tell it, happiness is just a form of sinfulness; apparently it is a crime to stop and rest at any time. Mistaken souls like neighbor say that working 16 hours a day is nothing but the normal rate for those concerned about their fate.

Those folks are off a country mile; I can't believe a sunny smile will earn demerits anywhere except perhaps in Satan's lair. I doubt that work, without some play, will count for much on Judgement Day. The ones who are most apt to get high ratings for their lives, I'll bet, are those who've found the recipe for mixing work and fun, by gee, 'cause they're the happy people who make their surroundings joyful, too. Ambition may be wonderful, but this old world would sure be dull if going fishing were a sin and faces never wore a grin.

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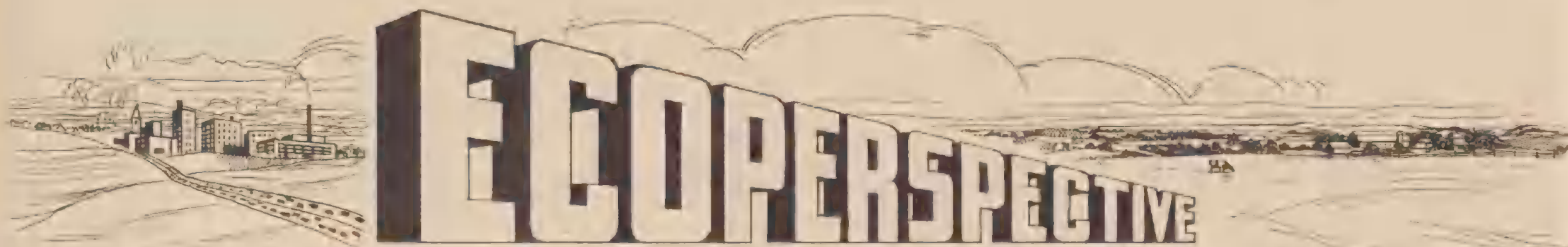
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So, who's an organic gardener?

by Win Way*

GENERATION gap, missile gap, and now a nutrition gap... honest differences of opinion between individuals and between whole segments of our population. Good health has been described as the absence of sickness, but to members of the organic persuasion, there are many degrees of good health.

"Health" may be defined as plugging along from day to day; it may be leading a "normal" life; or it may mean feeling that you are on top of the world and radiant beyond your years.

Natural and *organic* as opposed to *scientific* are the words around which the battle lines are drawn in equally stubborn debate. Both sides argue with good reason, but each seems to have become more militant and less tolerant. Someday, organic philosophies and science must both discover new truths.

We are constantly bombarded by everyday examples of the conflict. A news item from *The Boston Herald* of December 8, 1971 quotes Dr. Frederick J. Stare, professor of nutrition and chairman of the Harvard School of Health's Department of Nutrition:

"We state irrevocably that there is no difference in nutritive value of these two types of food (food grown with the aid of chemical fertilizers and chemical pesticides as compared to organically-grown food). This clear, direct, positive statement is nothing new. It has been known for years by nutritional and soil scientists and has been thoroughly researched."

On almost the same day, a proposed college research project designed to compare certain nutritional values of organically-grown food versus chemically-produced food was being discussed. Justification for project funds implied that the public was demanding answers and that little or no research existed. The truth is that few research projects have ever studied these comparisons.

Two different authors, both knowledgeable in nutrition, contradict each other in the *Yearbook of Agriculture* entitled "Food." One says, "Our tables of food composition would be of little or no value if the composition of a plant were dependent on

the composition of soil on which it was grown."

The other states, "The influence of soil and climate on the nutritive value of foods for man and animals... the soil, plant, animal relationship... has been recognized for some time." And so the battle continues.

Food and Health

In December, an advisory scientific task force reported to government officials that "death and disability from heart attacks, brain strokes and other blood vessel maladies have reached epidemic proportions in the United States. High blood pressure, high cholesterol diets and cigarette smoking have not been scientifically determined to be critical factors contributing to the maladies." Is it not normal for those concerned with their health to imagine that nutrition could be a major contributing factor?

The opinions of natural foods and organic enthusiasts are constantly reinforced with each new food additive removed from public use, with each new disclosure of a contaminant in food, and with each new announcement concerning the inadequacy of cereals.

Authority

When such an authority as Henry A. Schroeder, M.D., in his book *Pollution, Profits and Progress*, published by Stephen Greene Press, writes that food is "too pure," it reinforces their philosophies. Dr. Schroeder believes that our highly-refined diet of starches, sugars, fats and oils may be depriving us of essential mineral nutrients, while our animals are fed most of the goodness in feeds.

We are all familiar with endemic goiter... proved beyond doubt as a problem of soil deficiency. Many Americans take fluorine in drinking water or toothpaste to make up for lack of this nutrient in food. Additional zinc in the diets of soldiers was reported to hasten the healing of wounds in Vietnam. A large percentage of American women are deficient in iron.

Lack of phosphorus disrupted the hormone balance of New Zealand sheep during World War II. Florida cattle need extra copper. Cobalt deficiency has affected dairy ani-

mals in New Hampshire, and magnesium deficiency (grass tetany) is becoming a more common occurrence throughout the Northeast.

These are just a few examples of nutrient deficiency and its effect on health. How much is known about the relationships of chromium, selenium, vanadium, nickel and manganese to human health, or to so-called diseases?

Meaning of Organic

Defining an organic gardener is not an easy thing to do; they can't even define themselves. Unlike a religion, they have no commandments or dogma; unlike an organization, they have no bylaws.

Instead of set rules, it would appear that those of organic persuasion (a better term than organic gardeners) have a philosophical goal which they hope to achieve. They seek a way of life more in harmony with nature; they advocate everything from breast feeding to eating naturally-produced foods, and conservation of resources.

Organic believers make special efforts to return organic debris of all kinds back to the earth from which it came so that it can again be recycled to plant growth.

Organic philosophy is reincarnation in a physical sense, coupled with a devotion of spiritual feeling. This spirituality of food is a topic foreign to most Americans who think of food as a belly-filling necessity, with only a moment of taste and smell as we hurriedly gulp down our meals.

Organic gardening is not new; it has simply come of age. While most organic believers have long been considered a bunch of "health food nuts" and far enough out to be ignored, this is no longer the case. This group, traditionally oldsters worried about their health, has found fresh reinforcement in the youth of today who are also questioning our world of super science, wondering where it will all lead.

Organically-produced food that used to be bartered, swapped or exchanged at seasonal get-togethers of organic gardeners has suddenly become an article of commerce. Health food stores have sprung up all over the place to dispense many sorts of food... some rather exotic, some produced on communal farms,

and some undoubtedly produced in the conventional way but masquerading as legitimate organic. With such a large demand and so few producers there is always the temptation to pick up a fast buck.

From outward appearance, who can tell whether food has been organically grown... except that you expect the apples to be scabby, the broccoli to have bugs and the potatoes to be small. Some years ago one shrewd farmer was reported to be selling his small potatoes as organically-grown for 69 cents per 10-pound bag, while his larger ones went for 39 cents through regular markets!

Reputable dealers of organic foods demand assurance that the products they handle meet certain qualifications... no pesticides, no "bad" fertilizers, no additives, and a minimum of processing.

Farmers of the Northeast should not be too quick to poke fun at organic believers, for they are pretty good organic farmers themselves. With the new environmental laws, they will become even more so, like it or not. Many pesticides are being curtailed; the handling of manure will be regulated; nitrogen and phosphorus fertilizers could become restricted in use, and municipal sewage waters may have to be returned to the land.

Would it surprise you to learn that dairymen and organic advocates have much in common? Dairymen should be astute observers of nature... soil, plants and animals. Dairymen should understand the importance of good nutrition for all kinds of life.

They should advocate the recycling of wastes, be aware of the value of manure and recognize the importance of soil organic matter. Lastly, dairymen should be keenly aware that all chemicals are harmful if misused, and that all medicines are poisons; only the prescribed dosage saves you from harm.

Quiz

Now, how about taking a short quiz to see how much of an organic philosopher you really are. Make a list of numbers from 1 to 13 on a sheet of paper. Don't mark your *Agriculturist*, for you may wish to

(Continued on page 18)

*Win Way is the Extension Agronomist at the University of Vermont.

Bad news for worms

The Chemagro Division of Baychem Corporation is marketing a new product called BAYMIX Crumbler, for control of five economically-important internal parasites affecting cattle. It is added to feed . . . no need for a bolus or drench.

Of prime interest to dairymen, BAYMIX Crumbler is the only wormer that can be fed to lactating cows without having to withhold milk from the market following treatment. This allows a milk producer to treat his entire herd at the same time, and thus helps to reduce the chance of reinfection.

Professor A. C. Todd, of the University of Wisconsin at Madison, conducted a study on the material, and reports as follows:

"As you know, there has existed for some twenty-five years a sort of modest controversy about the importance of what has been called subclinical parasitism in our dairy cattle. I am one of those who maintained all these years that subclinical parasitism was normal parasitism and affected milk production.

"It turned out that the dairy world was not about to accept my position without some data, and so a few years ago we set off and dewormed over 1,000 head of milking cows with one of the three drugs on the market for ruminants at the time. Two of them required that the milk be discarded after treatment, but our Wisconsin dairymen have a tradition of cooperating with our University, and so we had no problem in the field trials to get the farmers to discard milk. It worked out that if we dewormed the average dairy

cow, she responded by an increment in milk production amounting to 2.2 pounds within a week.

"The thing that happened then was that the professional dairymen said, 'That's all very good, professor, but how long does this increment last?' Working with BAYMIX, and with DHI herds exclusively, we have been able to establish that the advantage a dewormed cow has after treatment lasts between 60 to 90 days, which thoroughly covers the cost of the deworming and returns a considerable profit."



Cows readily adjust to the 5 feet-per-minute speed of this new low-cost free-stall barn cleaner from Acorn Equipment Company, Box 207, Stevens Point, Wisconsin 54481. Because the entire drive mechanism (including stainless steel cable) is above floor level, no special cement work is required, making it easily adaptable to existing free-stall barns. Scraper blade draws manure into end gutter of pit, tilts up to pass over fresh dropping on its return cycle.

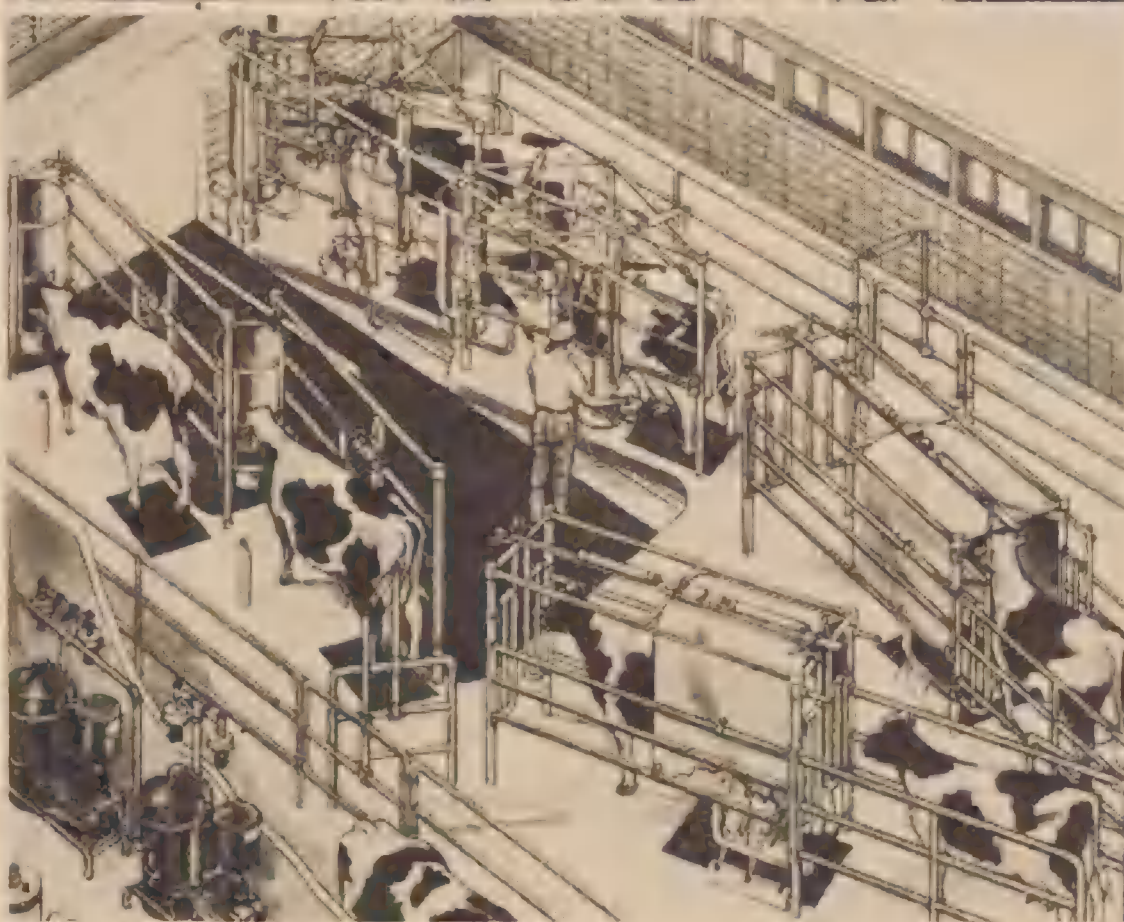
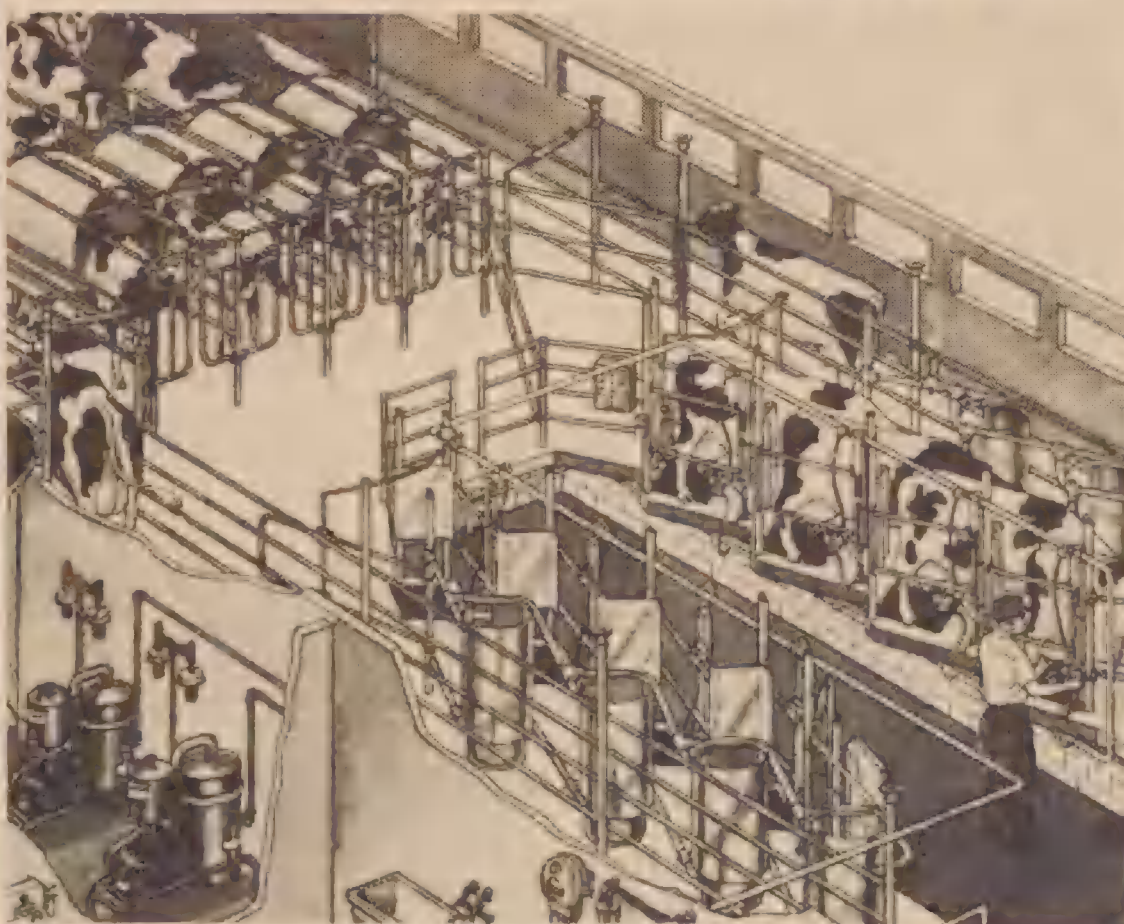
EFFICIENT MILKING

The fifth edition of "The Modern Way to Efficient Milking" has recently been published by the Milking Machine Manufacturers Council of the Farm and Industrial Equipment Institute. This new 36-page booklet, which contains a uniform set of procedures relating to milking machine operation, has two important revisions. There is a new section on preventive maintenance, and new data on the recommended number of units per slope in pipeline installations.

First published in 1964, the booklet has been circulated worldwide to dairymen, veterinarians, sanitarians, vocational agriculture teachers, etc. It is priced at \$1.00 for a single copy, or 30 cents each for quantities. Order from the Milking Machine Manufacturers Council, 410 North Michigan Avenue, Chicago, Illinois 60611.

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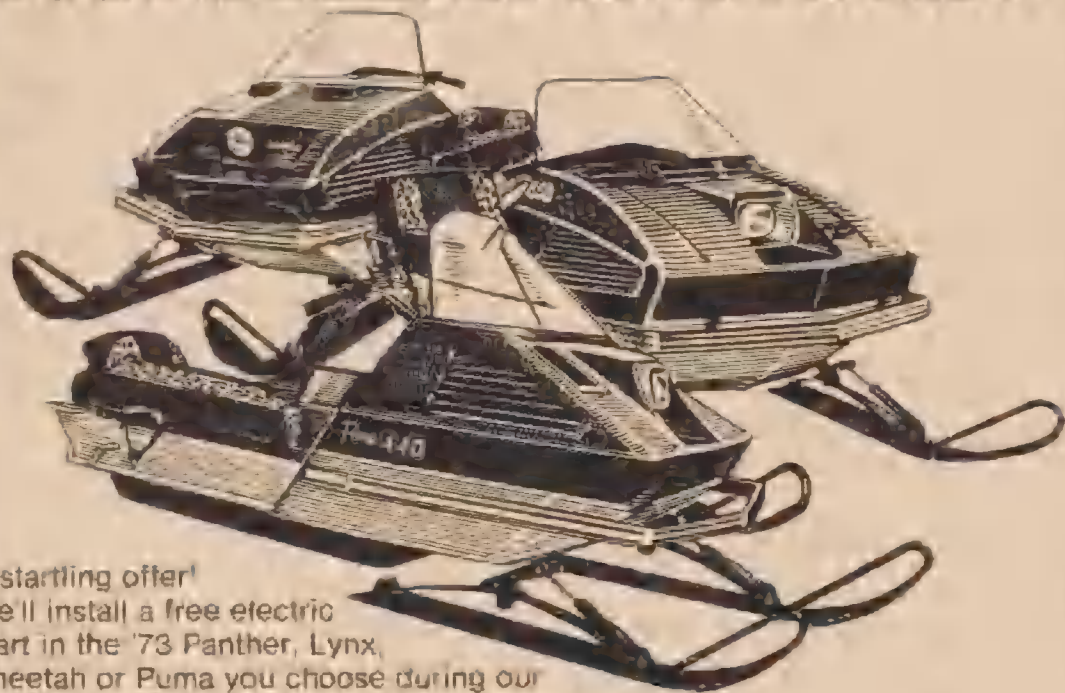
"Linda used to work with me out in the fields but since the baby came I don't want her to work."

American Agriculturist, August, 1972

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Organic

(Continued from page 16)

give someone else a chance. After reading each of the following 13 statements, jot down a yes or no, depending on whether you accept or reject the statement as agreeing with your philosophy.

1. Food quality is part of your (well)being... size, shape, complexion, hair luster, mental attitude and IQ.

2. Whole segments of our population, as well as individuals, don't enjoy a truly nutritional diet. Money to buy the proper food and availability of the food is not the problem.

3. Soil characteristics (physical, chemical and biological) cause foods to vary in both organic and inorganic chemical composition.

4. Toxins may accumulate both internally and externally to plants and are transmitted to man and animals who ingest them.

5. Nearly all soils are deficient in macro or micro nutrients for optimum plant growth, and most plants will respond to additional nutrients in some form.

6. Organic refuse of all kinds, including manure, sewage and myriad solid wastes, have nutritional value... if not directly to man, then via the food chain through soils, plants and animals.

7. Scarcity of natural resources will not forever permit man to discard waste materials in a thoughtless manner, and at the same time permit him to endlessly mine virgin materials to take their place.

8. Nutrient imbalances in food can be created by too much technology of a single kind applied to the exclusion of others. (Examples: nitrogen, lime, potash.)

9. "Natural," or less intensive methods of food production, generally result in a more nutritious product. The highest yields per acre do not generally result in the most nutritious or well-balanced food.

10. Food additives and preservatives sometimes result in detrimental effects to man, in spite of wide-scale testing and general public use.

11. Man's beliefs, attitudes and reasoning are strongly influenced by fear of the unknown, lack of information and research, misinterpretation of knowledge and distrust of economic incentives.

12. Man has an inherent suspiciousness of man-created things, both materials and technology, and a seemingly endless faith in "natural" processes.

13. Man, in trying to help himself to security and survival, may be creating such a burden on the environment that a day of reckoning will undo much of what he hoped to accomplish.

Your Scores

If you can accept ten or more of these ideas and had "yes" for an answer, then you are something of an organic believer yourself. This is not to say that you and organic believers have unanimity of opinion on all matters. You and a devout organic enthusiast will likely differ on the use of pesticides, superphosphate, food or feed additives, synthetic nitrogen fertilizer and use

of animal hormones to speed growth, just to name a few.

When you meet organic enthusiasts, don't be too eager to argue. As with arguing religion, you'll seldom win and will likely strengthen their convictions. They will back you into a corner with questions about how you farm or garden, and how you know that what you are doing is right.

You will likely end up with the answer of last resort: "It must be right because... I get high yields; it pays; or I make more money." This is exactly what they want you to say because it proves to them how stupid you are to believe that money is sufficient justification for the practices you disagree on!

It's the Principle

Organic enthusiasts will rate money as a fairly low item of priority; it's the principle that counts. But they will deny that organic production is all that inefficient. You'll argue that we couldn't feed ourselves without fertilizers, pesticides and all our other scientific endeavors. This is a hypothetical question. No one knows the answer and we in the U.S. will never try living "organically," except on a relatively small scale, unless catastrophe forces us to.

Our present sophisticated society would have difficulty in reverting to the production of all-organic food on a national basis. Nevertheless, you should not overlook the fact that most of the people of the world now eat organically-produced food. How about the peoples of China, India and Southeast Asia? True, they are often grossly undernourished, but nevertheless they manage to exist. However, the reason for their inadequate food supply rests in overpopulation and not in their agricultural production.

Unreasonable

The primitive, organic-type agriculture as used in China and India may seem unreasonable to us... and yet it has supported and will continue to support their populations, if the populations don't double. Conversions of their agricultural systems to the highly technological one we use is out of the question. Ours is too wasteful of energy, metals, chemicals and environment.

Ecologically speaking, organic culture makes more sense over the long pull. There aren't enough resources on this planet for all countries to grow food the way we do!

Don't say that organic believers won't have an effect on foods in America; they already have. With no figures to prove it, I conclude that we eat more rice per capita and fewer potatoes. Have you seen the ads for natural sugar and unbleached flour? Note how many people have switched to dark bread. Soybeans are becoming popular in several forms. Honey is scarce, and wheat germ sales are up. Even your local supermarket may indulge you with an organic foods section.

Organic food production has progressed to its second phase of popularity. It has moved from impossible to plausible and no one should predict its future, except that it seems to be here to stay... in spite of all the ammunition that science can muster to pooh-pooh it!

American Agriculturist, August, 1972

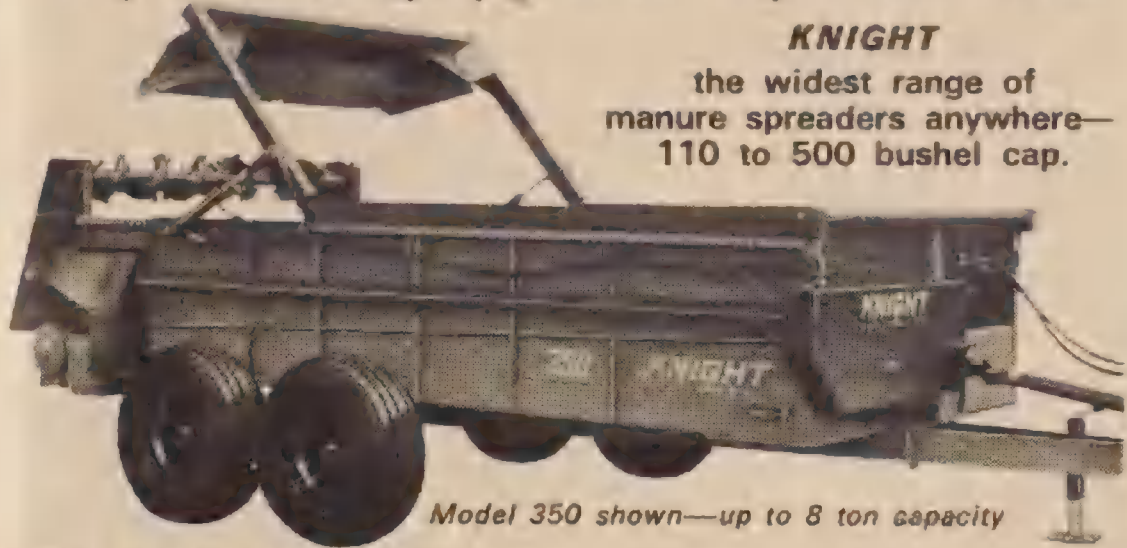
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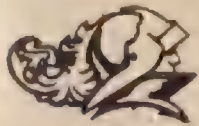


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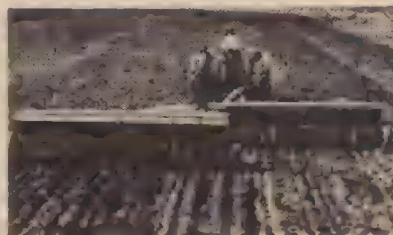
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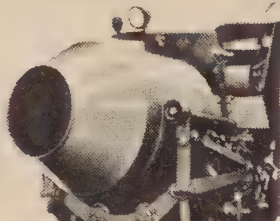
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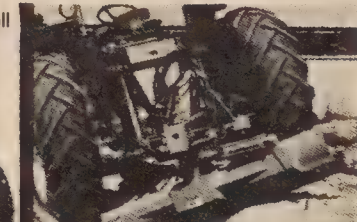
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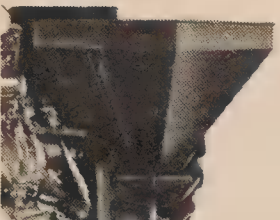
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Photo: T. J. Frizzell.

Beef Crosses — On a recent visit to
the British Isles, we were impressed
with the evidence that, even in the
cradle of our major beef breeds,
crossbreeds are taking over commer-
cially to a large extent.

Most common were the black beef
animals with white faces, indicating
crosses of the popular Herefords
with the black beef breeds... or,
when available, crosses with the
Friesian dairy breed. This latter cross
gives a faster growth rate and a more
popular finish in the dressed beef,
and calves of this cross are greatly
in demand. Many pure Friesian steers
were also being raised for beef. Even
in Hereford, on the Welsh border,
we saw very few purebred herds of
the whitefaces.

In the Scottish highlands, more
of the Galloways (and Galloway

crosses) were seen. These are some-
times difficult to distinguish from
the also-numerous Aberdeen Angus,
but they are a heavier-coated im-
provement over the traditional "little
black coos" of the Highland. A few
of the shaggy Highlanders were also
seen, but not in large numbers.

A new cross that seems to be gain-
ing in popularity in the Isles is be-
tween the Shorthorn, carrying the
dominant "roan" characteristic, and
the dominant black Angus or Gal-
loways. The result is a dark-colored
animal with the intermixed white
hairs, giving it a roan, or blue color.

Some of these calves are almost
black, indicating that the heifers
had been bred back to an Angus
bull, giving them three-quarters
Angus blood. We saw many good-
looking Blues mixed through the
beef herds in Scotland and England.
—T. J. Frizzell, Charlestown, New
Hampshire.

Grand Bullroom — The Grand Ball-
room of the Denver-Hilton Hotel,
normally reserved for high society
and formal functions, has been se-
lected as the site for the sale of some
125 purebred Simmentals following
the 1973 convention of the Ameri-
can Simmental Association, January
10-12, also at the Hilton. Cattle will
be stabled in one of the hotel's un-
derground parking facilities, then
board a freight elevator for the three-
story ride to the ballroom. The Hil-
ton is installing indoor-outdoor car-
peting in all areas where the animals
will walk, reports sale manager
Casey Anderson.

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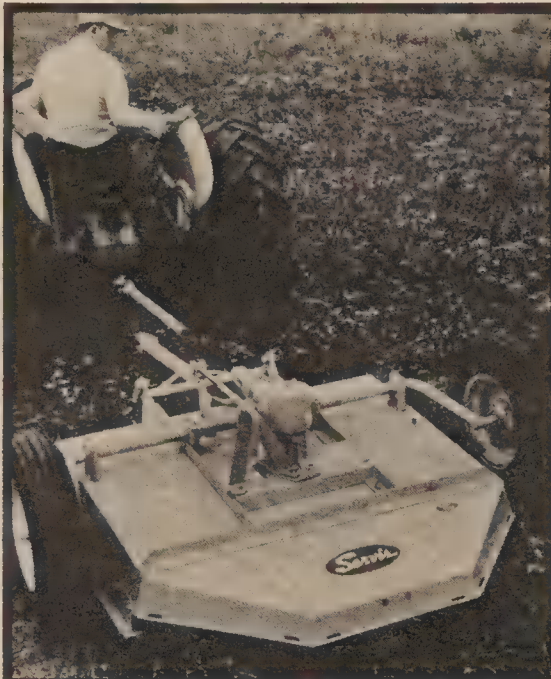
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Tractor differential locks

by Wes Thomas

WHEN a tractor turns a corner, the outer rear wheel must turn faster than the inner wheel. If tractor conditions under both wheels provide maximum traction effort, the conventional differential-gear arrangement is quite satisfactory. If the conditions are different for the two wheels, however, the differential limits traction to that of the wheel with the lower traction conditions, even when the tractor is moving straight ahead.

In automobiles, limited-slip differentials are available as optional equipment to overcome this disadvantage by permitting enough differential action between the two rear wheels so the automobile can turn the sharpest corner permitted by the steering geometry of the car.

But under poor traction conditions, when the relative motion between the two wheels exceeds this amount, further differential action is blocked out. Thus, if one wheel is slipping, once the slip exceeds the amount normally allowed for turning a corner, the wheel with the better traction can move the car forward. Such an arrangement can be automatic and requires no control by the driver.

Impractical

Limited-slip differentials are not, however, practical for tractors. The turning radius of a tractor is so much smaller than that of an automobile that the amount of differential action required is so great as to make this arrangement useless. For tractor use, the differential action must be locked out completely or it must be released so that complete differential action is available.

Several tractor manufacturers provide such differential locks on their tractors. Basically, all these locks block the action of the differential so that the two rear wheels turn as a single unit. Such a lock must also include provision for releasing completely so that the tractor can turn at the end of the row.

The exact arrangement used to accomplish this varies among the different manufacturers. Some mechanically lock the two axles together, others use a friction-clutch arrangement.

Features

Basic features required for the most satisfactory differential lock arrangement include:

1. The operator should be able to engage or disengage the lock under all conditions of travel, even with differential action in process. This prevents the loss of tractor momentum in the critical period when the differential lock can be beneficial.

2. Once the lock is engaged by the operator, it should continue in positive engagement without additional attention by the tractor operator.

3. The lock should disengage completely whenever steering control is required.

4. In most cases, the lock should be controlled by foot so that the hands are left free for the other normal operations of tractor control.

All differential locks available on the different makes of tractors include at least some of these features. However, all of them do not provide all the features.

Since these differential locks are available only as optional equipment when you are purchasing a new tractor, you'll want to investi-

gate these aspects very carefully if you are considering a differential lock on your next tractor.

In general, differential locks offer these advantages:

1. Increase the drawbar pull of the tractor when each of the rear wheels is operating under different traction conditions.

2. Make it easier to plant straight rows with the tractor.

3. Help reduce the steering effort necessary for cultivating row crops.

4. Reduce the effect of side draft on the tractor. This is unavoidably produced by the manner in which some implements must be hitched behind the tractor.

One possible disadvantage, or at least inconvenience, is caused by these differential locks. When there is a big difference in rear wheel traction, the front end of the tractor is pushed toward the side of least traction.

However, when the tractor is being used for plowing, for instance, the use of a wide front end with the right front wheel in the furrow overcomes this difficulty. In other situations, extra weight on the front end can be used to give the front wheels additional resistance to being pushed sideways.

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THE OTHER SIDE

Your editorial, entitled "One Jump Ahead," concerning public aid to private schools was good and I agree with most of what you say. However, you left too much unsaid; there is another side to this story. At a time when prayer and Bible-reading have been forced out of our public schools and the philosophy of secular humanism is replacing the Christian philosophy which dominated our public schools until recently, there is a great need for Christian or parochial schools.

If we are to preserve the wonderful religious freedom which we have enjoyed in this country, we must protect the primary right of the parents to educate their children. Certainly the state and local communities have an obligation to see that the children of the community receive an education and do not grow up illiterate.

However, the rights of the state must be secondary to the rights of the parents. But the rights of the parents can be rendered ineffective by the present increasingly heavy taxation. There is something inherently unjust in taxing a parent who is already providing an education for his children in non-public schools.

Reduction

Today we are seeing a steady reduction in the Catholic parochial schools and I understand that this is caused by financial pressures which have contributed to the demand for public funds to private schools.

There is a reasonable solution to this problem which is entirely consistent with the Constitution and traditional concepts of separation of church and state. It is very simple, and it will help all private schools from elementary to college, those which are Christian as well as those which are non-sectarian. This is to allow the parents of children who attend any private school a deduction on their tax and/or a possible tax credit for tuition payments.

They could receive the same deductions for tuition payments to their Christian school that they now receive for contributions to their church. There would be no need for any government officials to administer the program and there would be no danger of control of our private educational institutions, which danger is inherent in all plans for direct government aid to private schools.

Lower Burden

This plan would lessen the tax burden on the average parent with a child in a Christian school by \$100 to \$200, which would help that parent to pay his tuition and any necessary increase in tuition. This in turn would help keep his school going and avoid the tremendous burden that would be borne by the taxpayers

if all Christian schools were closed.

I discussed this plan recently with a member of Congress in whom I have great confidence, and he told me that he personally favored the plan but thought it had no chance of being adopted by the Congress. Of course, this plan has strong opposition because it promotes freedom and allows the parents to finance and control their own schools rather than have them controlled by government officials.

It's really a matter of very basic philosophy. The more we tax the people, the more they will be forced to go to the government for state or federal aid. The less we tax the people, the more they will be able to do for themselves, and it is an important difference between socialism and freedom.

If my Congressman friend is correct, and I suspect he is, the people who favor the way of freedom are not in control of Congress, but this can be changed if the American people will take an interest in their government and determine to send to Washington only Congressmen who are in favor of freedom and against socialism. — William C. Elkins, Burdett, New York.

MEMORIES

The lamps have all gone out, and the lantern hangs no more from a nail driven into the beam in the barn. Old iron-tired wheels are rusting and rotting beneath an equally haggard apple tree. An ancient grindstone lies prostrate and forlorn in the unmowed weeds.

A cellar hole remains with its tumbled-down walls to tell us where some man of courage built his domicile in the new land. The lilac bush lives on and blooms in spring, unmindful of time, and forgetful of the lives that once were there to pick its blossoms for a parlor bouquet.

These are the records that are left... the faint reminders of a time in history when the countryside was radiant with a vigorous and vital humanity. A tear may justly fall for its passing. The land these people left has grown to brush.

The fence of rails has served its last purpose in some ever-hungry kitchen stove. Only a weathered pile of stones remains to mark those hours of labor when a meadow was created out of the virgin soil.

One wonders... will our lives today be so easily forgotten? Will time marshal its forces to erase what we in today's world so avidly admire? My pen searches for the answer, but only finds it in some long-forgotten muse which lay on yesterday's mantle.

Only that recitation is permanent which speaks of the human soul in transit, with its loves and its labors, its hopes and its dreams and its

(Continued on next page)

prayers. The landscape changes. The blade of the bulldozer buries the old and makes way for the new... but the landscapes of the deep issues of life are as unchanging as the hills. What our grandfathers thought and felt will be repeated as long as there are men on earth to grapple with the earth's unconquered regions.

If that lilac bush could speak, what a story it would tell of the days of mankind, and how life goes on in spite of those old decaying wagon wheels lying so still under an ancient apple tree. — *Edwin R. Rice, Randolph, New York.*

SENSE OF VALUE

Through various news media we were recently informed about a ban being ordered on certain pesticides for predator control. This action takes the products off the market immediately and the manufacturers were requested to issue stop sale orders to all consignees of the products. One reason for this action against certain pesticides was that "they were thought to be the probable cause of 20 eagle killings in Wyoming."

Lest I be misunderstood, I am not condemning this action nor am I advocating the slaughter of birds, fish, or wildlife, but surely there is a lesson here for us. When something was thought to be the "probable" cause of death for 20 eagles the immediate reaction was, "Oh, those poor eagles! Something has to be done!" And it was!

A stream becomes polluted and kills the fish and immediate action is taken. Man becomes polluted and destroys human lives and we say, "Ho-hum."

A recent series of articles said alcohol was our **deadliest drug**. We are told, "Alcoholism ranks behind only heart disease and cancer as a killer in the U.S. . . causing 30,000 deaths a year which does not include another 30,000 deaths involving drinking." What is being done about this waste in human lives?

A pesticide that was thought to be the **probable** cause of death for 20 eagles was recalled and banned. Alcohol is known to be the direct cause of over 50,000 deaths annually and we license it, protect those who make and sell it, advertise it, dignify it, buy it, consume it and pass it around! Anyone who speaks out against it in any way is some kind of a fuddy-duddy, crackpot, or fanatic!

The Lord loves birds too, but He teaches that man is more valuable than a bird. Evidently in our "enlightened 20th century" one eagle is worth more than 2,500 human lives! It would be considered the highest of inhumane acts to get a bird or animal drunk and turn him loose. But we think nothing of getting a human being drunk and turning him loose! We'll even put such a one behind the wheel of a car and say, "Go get 'um tiger!"

For the birds and wildlife we ban pesticides. For human beings we try to lower the "legal drinking age." — *The Rev. Ray Beggs, Indiana, Pennsylvania.*

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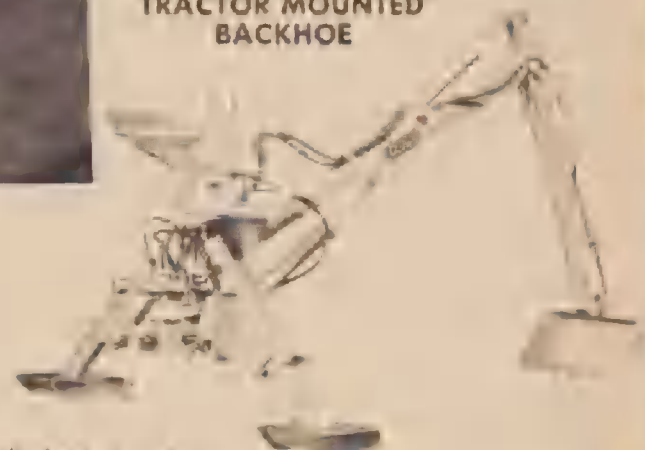
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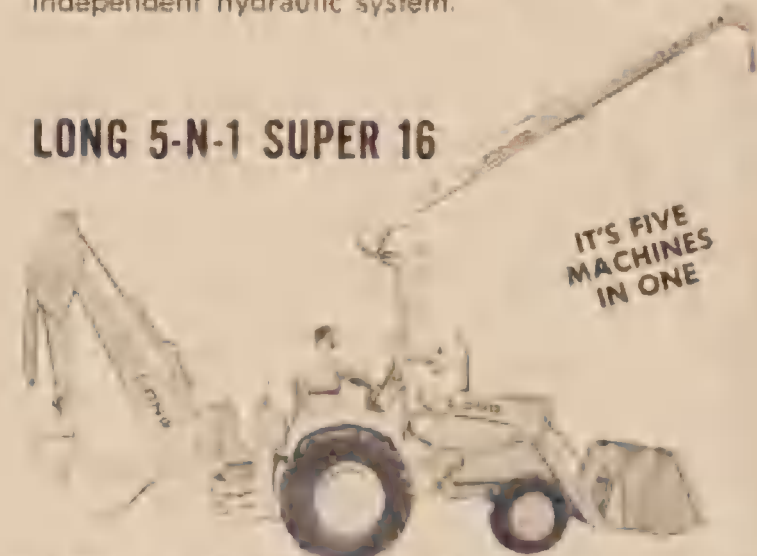
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How to prevent a Wet basement

by E. W. Foss*

ONE measure of quality in a house is a dry basement. However, many real estate developers and builders or contractors building on wet land (flood plains) fail to use known building practices to secure a dry basement. The unfortunate purchaser inspects the house during a dry period, and not knowing what to look for in detecting past or future problems, agrees to buy it. Later, during a wet period, the problems show up . . . or maybe "flow up" would be a more appropriate term!

In an increasing number of situations, houses formerly okay have been affected by road construction, change of waterways, etc., and afterward the owners find their buildings subject to flooding.

If you are selecting the site for a new house, make certain that the land is well drained and that the area has never been flooded. If a particular site that has a record of being flooded is essential for a building, then the architect or contractor can take precautions against flood damage to the building and contents. These precautions, such as hauling in fill or providing a waterproof membrane, will increase the cost of the building.

Causes

The following causes and preventions of wet basements should be helpful in preventing future difficulty, or determining the cause of a present problem:

1. Many basements are too low with respect to ground water and/or flooding at certain times of year . . . and particularly for wet years. Instead of a cellar drain removing water, ground water may run into the cellar through drains and/or cracks in the cellar floor or walls. Similarly, water and domestic waste may back up in the sewer line during a period of flooding.

2. Frequently, the builder does not place a tile drain (in gravel) around the building footing or foundation to pick up ground water and conduct it to a lower elevation. The ground water builds up and is pushed through cracks in the mortar between concrete blocks or between blocks and footing.

A relatively common . . . but poor . . . building practice that increases the chance of basement moisture is the construction of a basement slab

that also serves as a footing. The exterior wall, as well as all interior walls, are supported on this slab. Result is:

a) The joint between slab and wall is then at floor level rather than below as it would be when the wall rests on a footing, and

b) The greater weight on the edge of the slab will usually cause the slab to settle and crack, providing greater opportunity for water to enter the basement.

3. If there is a seep or spring in the ground under the basement, this area must be drained by means of gravel and a separate tile line.

4. Lack of eaves troughs, downspouts and drains permits the water from rain and snowfall to enter the ground near the house. This often causes, or contributes to, wet basements. The situation is made worse if the ground is not properly graded to slope away from the house.

Sinking

The sinking or settling of backfill around the basement wall may concentrate water near the foundation wall. Backfill will continue to settle for many years, though most of the settling occurs during the first two years.

The drain lines from downspouts or from the cellar or foundation should always be separate from the domestic sewer, whether the sewer runs to a septic tank or to a community sewer system. Flood water entering a sewage disposal system quickly overloads it.

Waterproofing

The first task in waterproofing a basement is to determine the source of the water. In addition to ground or surface water, there may be leaks from exposed or buried water pipes.

Also, cellar walls will often "sweat" when humidity is high . . . particularly during summer. Many homeowners keep a pilot flame operating continuously on their gas furnace to help raise the temperature and lower the humidity in the summer.

One or more of the following measures will prevent moisture from coming into your basement:

1. If surface water or roof drainage is the problem:

a) Bring in topsoil, place around building foundation, and establish a positive grade away from the building.

b) Provide eaves troughs and downspouts with outlets diverted away from the building.

2. Apply waterproofing to the cellar wall.

a) An exterior application is better than an interior one. However, excavation to get at an untreated wall is both difficult and costly. One or two plaster coats or cement

(Continued on page 25)

*Agricultural Engineering Department, Cornell University

Copies of the updated Farmers' Bulletin No. 115, entitled "Making Basements Dry," are available for 10 cents each from the Superintendent of Documents, Government Printing Office, Washington, D.C. 20402. Please include zipcodes.



Beekeepers — An organization of interest to beekeepers is the Eastern Apicultural Society. Made up of beekeepers from the eastern U.S. and Canada, the Society meets once a year on the campus of one of the state universities. The annual program is a combination of events primarily concerned with beekeeping... scientific research reports, shows, demonstrations, etc... but also includes trips about the campus and to nearby points of interest, as well as other pleasant socialities. For full particulars, write to Henry Newhauser, Scott Swamp Road, Farmington, Connecticut 06032.

This year's meeting is August 9-12 at the University of Connecticut.

Scab Control — This year for the first time, New York apple growers are using the new long-lasting fungicide Difolatan in their scab control program. Difolatan is sprayed just once during spring when buds are beginning to show green leaf tissue. For approximately the next five critical weeks, no further spraying against scab is necessary... so report plant pathologists at Cornell's Geneva Experiment Station.

Difolatan is unique in that it is not easily washed off the trees by

rain; in fact, rains redistribute the protective residue throughout the tree, especially to new growth. After petal fall, when the early-season threat of scab diminishes, the normal fungicide spray program is resumed to finish out the season. This new program with Difolatan has been found as effective in controlling scab as the conventional full-season program of 10 or more applications.

New Vineyard — Richard Peterson, R.D. #2, Romulus, New York, is the farm manager for Cayuga Farms Limited. The company is planning to create a new 120-acre vineyard in Seneca County not far from the hamlet of Fayette... near the west shore of Cayuga Lake.

Varieties will be for wine, and

major purchasers are scheduled to be Taylor and Great Western. Peterson has two vineyards of his own on two separate farms, each with 10 acres of grapes at present.

Dwarf Apple — The dwarf apple tree on EM 1X warrants serious consideration for commercial orchards. So says Dr. Aleck Hutchinson of the Horticultural Research Institute of Ontario, Canada. In a 30-year trial, training to wires has provided necessary support for the trees. The palmette form, or fan-shaped tree, distributed new growth over the whole tree and conformed more with the natural habit of the tree than did the horizontal form with scaffolds carried along the wires.

With the greater cropping surface

developed, higher early yields may be expected with the palmette tree forms. The trellis-trained trees have demonstrated that sustained average yields of 1,000 bushels per acre or more are possible with leading commercial varieties.

Cultivated Blueberries — Reader P. O. Dickinson of Morrisville, Pennsylvania writes that his father, Edward M. Dickinson, was instrumental in developing the present cultivated blueberry. These plants were originally developed from crossing high-bush and low-bush wild varieties... a job that involved the agricultural colleges in both Massachusetts and New Jersey.

From a modest beginning long ago, the crop has become an important one in several states.



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Basement

(Continued from page 24)

mortar, plus an outside coating of asphalt roofing cement, is common procedure. An exterior application, plus footing drains, may be necessary if footing drains were not installed at time of construction.

b) If the cellar wall is very old and is made up of loose stones, often the best procedure is to build a form on the inside and place a cast concrete wall against the stone foundation.

c) Where leaks come through cracks or loose mortar joints, scrape out old mortar, chip out cracks, and force new mortar into the crack. Do the operation when the wall is dry.

d) If the entire wall is porous, wire brush and scrape it well to remove loose materials, then apply to inside of wall one or two plaster coats of cement mortar.

e) A cement and water paint will prevent seepage, but is seldom effective against any appreciable flow of water.

f) For some serious situations, cutting a channel in the concrete floor next to the wall... using an electric, compressed air or hand chisel... will drain all incoming water into a pit. A sump pump in the pit, equipped with a float switch, will then move the incoming water to an outside drain.

g) Where a cellar must be placed below a river or stream (water level), a waterproof membrane composed of layers of asphalt felt with pitch or bituminous cement between layers is recommended. This should be placed on the outside of... and also under... the wall, and in a continuous layer across the cellar floor between layers of the concrete floor.

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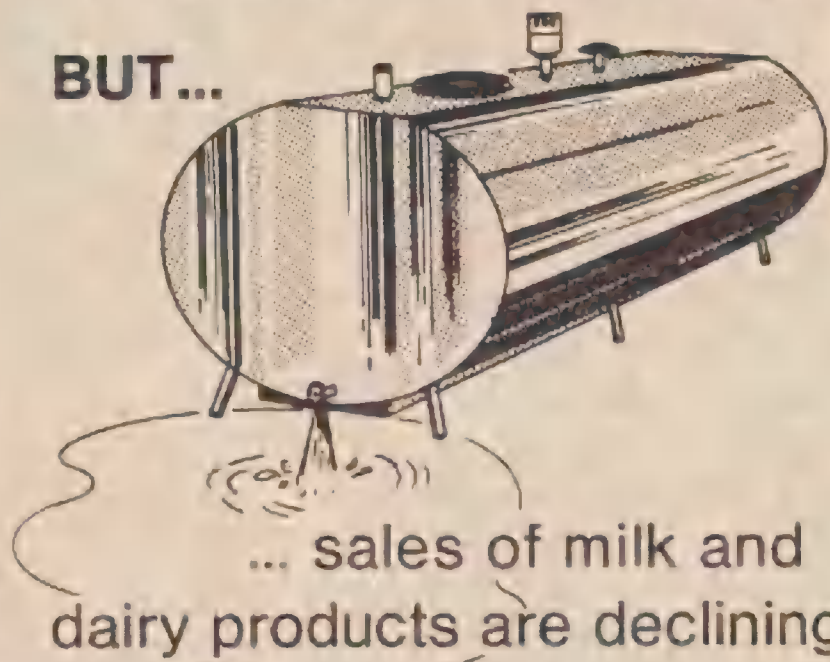
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LOOK FOR OUR DISPLAY AT THE EMPIRE
FARM DAYS AND NEW YORK STATE FAIR.

Local pesticide regulations

*What happens
when a town makes its
own laws regulating the use of
pesticides?*

by D. H. Fricke*

Huntington Township, on the western border of Suffolk County about 30 miles out on Long Island, has its own local laws regulating the sale and use of pesticides. The legislation is still relatively new, the finer points of the regulations are still being developed, and as far as farmers and other users of pesticides are concerned, the laws are being enforced this season for the first time.

Why did an individual township pass regulations which are more restrictive, in many ways, than existing state and federal pesticide registration, licensing and permit regulations? What do they mean to farmers who need to use many different kinds of insecticides, fungicides, herbicides and other chemicals to successfully produce agricultural products?

The town of Huntington has already been heavily developed, so has a large suburban population (200,000) and relatively little agriculture compared to 20 years ago. Still there are sod, potato, vegetable, apple, and greenhouse flower growers, plus others including nurserymen and poultrymen.

Huntington's town board has led the way before in "environmental quality" legislation. Under the leadership of supervisor Jerome Ambro, Huntington banned the use of DDT before New York State did, and also prohibited the use of detergents before the county acted to do the same.

Then in April 1971, the board enacted a pesticide control ordinance. It established a seven-member pesticide control board, banned the use of any pesticide unless registered in the town, and required licensing and permits. During 1971, the pesticide control board organized, debated what regulations were needed to enforce the law, and hired Dr. Ian Marceau as director of the town's Department of Environmental Protection.

Dr. Marceau is a dedicated environmentalist. As chief enforcement officer of the pesticide control board, his philosophy is that of reduction and elimination of the use of "chemical poisons" in the town. A major effort this year is a town-sponsored community organic vegetable gardening project, with 816 small plots on a 15-acre lot. The project, Dr. Marceau hopes, will demonstrate the superiority of organic gardening concepts.

Early in 1972, additional details were released. April 12, 1972 was set as the fully effective date of the regulations. Commercial applicators of pesticides (not farmers applying pesticides on their own farms) were

(Continued on page 32)

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JOHN DEERE

Moline, Illinois 61265



Farmland tax program

by Amos Kirby
New Jersey Editor

ARTHUR West, president of the New Jersey Farm Bureau, lists seven advantages that, in his opinion, farmers will obtain under proposed legislation aimed at reducing the tax burden on farms and homes in the Garden State. They are:

1. Taxes paid by farmers will be reduced by \$10-11 million annually.
2. Property taxes on farms on a

statewide basis will go down by 45 percent.

3. Tax on gross receipts will be repealed.

4. Net income tax will cost farmers no more than \$3 million.

5. Property taxes will go down by \$14 million.

6. No unfavorable changes in farmland assessment.

7. Farmers will not be subject to excess gains tax.

This is a much brighter picture than presented in a recent issue when my analysis indicated that there might be little difference in the actual taxes to be paid.

Mr. West's views are based on careful studies following conferences with Governor Cahill resulting in minor changes in the proposed tax relief program.

GYPSY MOTH

Despite unfavorable weather, the New Jersey Department of Agriculture spray program has resulted in a marked reduction in damage caused by the gypsy moth. A total of 49,000 acres of forested residential

and recreational lands were sprayed. Also, almost 100 million parasites reared in the Department's plant industry laboratory were released in heavily populated areas this year.

DO YOU KNOW?

If you happen to own land in the Raritan River watershed, are you aware that the Department of Environmental Protection can take over part of your land without compensation?

Following the destruction caused by hurricane Agnes in Pennsylvania and other states, the Department is going to have a lot to say about lands that may be subject to flooding. The term used is "floodway," and the Raritan watershed is only one of many similar waterways that may sooner or later be brought under state ownership.

The Department of Environmental Protection has vast powers, and hearings held in South Jersey are part of a program that may take over control of a portion of your farm.

WELL CASING REGULATIONS

The Food and Drug Administration requires that all drilled or driven dairy farm wells with a buried casing and seal must be brought above-ground by July 1, 1974. The casing must be extended 16 inches above-ground and capped with an approved seal.

WHAT... NO DDT?

The manner in which the Food and Drug Administration is reducing the production and use of some of our old reliable pesticides reminds me of the rhyme about Mother Hubbard going to the cupboard to get her poor dog a bone.

DDT is already an under-the-counter item in many places. While its use has been greatly reduced in recent years, there are pests that cannot be controlled without it.

Another item very difficult to secure is sodium arsenite, a standby in non-selective weed control. The manufacture of Mo-Go, a reliable product for exterminating moles and mice, was discontinued not long ago, and now Cyno-gas can no longer be found except as a household pesticide. What next?

COW MATS

Cow mats are gaining in popularity. Mats keep the animals cleaner and more comfortable, and provide protection against cold concrete floors.

Dairy specialists point out that matted stalls require 50 percent less bedding, which is a major cost in this state. Mats also reduce labor costs, improve the appearance of the barn, and most important, reduce the incidence and severity of hock, knee, teat and udder injuries.

Some dairymen have installed the mats in wet concrete with satisfactory results.

ASPARAGUS

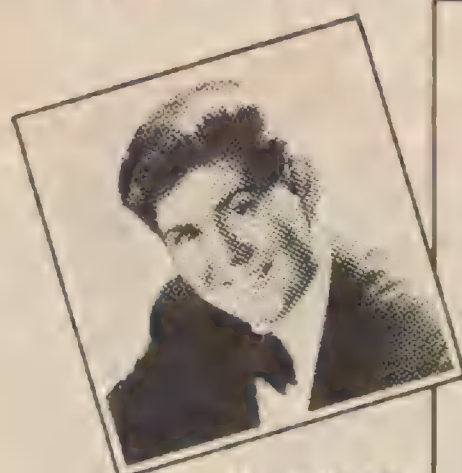
The asparagus crop in New Jersey has been the lightest on record. Yields have declined for two con-

American Agriculturist, August, 1972



NEW YORK STATE SUPER FAIR

AUGUST 29 THRU SEPTEMBER 4 • SYRACUSE



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AUG. 31, SEPT. 1



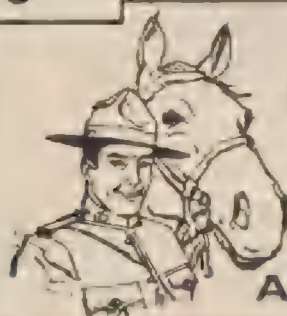
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AUGUST 29, 30



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secutive years, and with only 50 to 60 percent of a crop in 1972, growers are asking many questions no one can seem to answer.

Some blame the cold weather all during the harvest season. Others wonder if heavy rains in 1971 following the harvest may have been responsible. One grower believes disease may have weakened the roots. Size of the spears has been smaller than usual.

Experts at the College of Agriculture have no hard and fast reasons. This promises to be one of those questions that will be studied for months to come.

EGG LAW

New Jersey's new egg law, effective July 1, moves this important food item into the blue chip class.

This law protects the consumer against buying an inferior product. It starts at the farm. Every egg producer must register with the State Department of Agriculture. The producer who packs eggs in carton or bulk, for consumers, retail stores, restaurants or institutions, must register.

Egg packers will be inspected by regulatory inspectors every three months for compliance with the law. Other egg handlers, such as brokers and distributors, will be visited on a spot check basis.

Restricted eggs . . . as checks, dirties, incubator rejects, inedibles, leakers and loss eggs . . . will be monitored by state inspectors under the U.S. Department of Agriculture program. These restricted eggs may be shipped only to USDA-inspected egg breaking plants where they can be properly segregated and processed.

Some egg sales are exempt from the Egg Products Exemption Act, but they are still subject to the New Jersey state or local laws. Exempted are sales of eggs by:

1. Producers with flocks of 3,000 or fewer birds.
2. Producers, regardless of size, on their own premises or on a route directly to household consumers.
3. Egg packers directly to household consumers.

CANADA THISTLE

A New Jersey law states that one must not let Canada thistle go to seed. In Delaware there's a similar law applying to Johnsongrass.

The Canada thistle law, which has been on the books since 1953,

calls for a penalty of 25 cents for each plant allowed to go to seed. Of greater concern than the fine is the loss of good pasture; livestock soon learn to stay away from the thistle.

FARM PRICE CONTROL

The public clamor for cheaper food and control of farm prices is one of the most senseless ideas being forced on price control agencies.

While beef and pork prices are at the highest level in about 20 years, they are the only two farm items that are returning producers a reasonable return.

High prices, if the present returns can be considered high, are due to increased consumer demand rather than any attempt on the part of

farmers to hold out for a better return.

Market prices are based on supply and demand. Any attempt at this time to place restrictions on farm prices could result in further declines in production, resulting in even higher prices over a longer period of time.

Except for items in low supply due to weather, food prices at the farm level are no higher than a year ago. Prices on tomatoes for processing have been unchanged in the last four years, and this also applies to most other crops being produced.

A more sensible approach to food prices, if the consumer considers them excessive, would be to shift to less expensive items, rather than calling for price freezes and roll-

backs. I have spent considerable time in the cattle and hog-producing areas, and judging from the costs of production and the capital invested, present prices are not excessive and not one operator in a thousand is making enough to pay himself a wage comparable to those paid by industry.

WHEAT YIELDS

Hurricane Agnes reduced wheat, barley and rye yields by as much as 50 percent in sections of New Jersey. A fungus disease, called scab, has reduced wheat yields by 20 percent in Delaware.

With mercury seed treatments no longer used, a number of diseases have shown up on a number of wheat varieties in Delaware.

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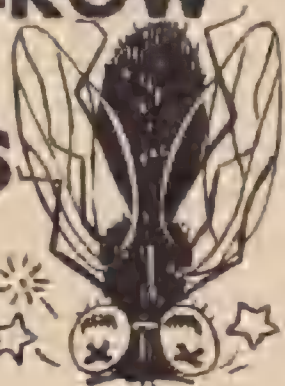
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Pesticide . . .

(Continued from page 26)
required to register and pay a \$50 fee. Those judged not to have sufficient experience or knowledge were required to take a course at a local college. About 25 chemicals were approved for general use by anyone in the town. These included the more common pesticides needed by homeowners.

The board indicated that it would not approve additional chemicals unless applications for registration were submitted. Therefore, the responsibility of asking for the registration, and submitting the required information, was either on the farmer or the chemical company selling the product. Many of the large chemical companies did not wish to begin

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the process of registration at the local township level, and did not request registrations for their products.

Cooperative Extension strongly urged that the town approve registration of chemicals as they appeared in the "Cornell Recommends for New York State" publications put out by the College of Agriculture and Life Sciences at Cornell University. This was not done.

The board also indicated that toxic or persistent chemicals would not be approved for general use, but for "limited use" only. This then required each individual user or farmer to file an application for a limited use permit for the chemicals he wished to use, assuming they had been approved. In general, it was indicated that any chemical on New York State's "A" (restricted) list, would be in this limited use category, if approved for use at all in Huntington.

Late in March, the board met to consider the first group of applications for limited use. Then and since, a number of limited use registrations have been approved and a few denied. Some materials approved both in Washington and New York State were turned down for local registration, presumably because they were a duplication of an already-approved product of a competing company, or were too highly toxic (Parathion).

On the effective date of April 12, it became apparent that a number of chemicals commonly used by farmers had not been registered.

Cooperative Extension notified commercial agriculturists in Hunting-

ton that they could no longer assume that the pesticides officially approved in New York State would be permitted in Huntington, and also informed them of the town's other requirements for use of pesticides.

Within a few weeks, the Long Island Pest Control Association asked for a court injunction against the town, and obtained a show-cause order. At this writing, the matter is still in the courts, which have in effect been asked to determine whether an individual township has the authority to enact pesticide regulations.

It is perhaps ironic that although many in the agricultural community were critical of these regulations, a basically non-agricultural group alone tackled the question of legality.

There is not much question that another layer of regulations and agency controls, added to existing state and federal controls, adds to the confusion and red tape in deciding what is legal for the individual. Local restrictions mean additional costs in one way or the other for the user. They also mean that in a carefully controlled statewide system of chemical-use recommendations by state colleges, it is more difficult to know what is legal where, and to provide effective control recommendations.

Some persons, in speculating about federal pesticide control legislation now being considered by Congress, have felt that new federal legislation might help to clear up some of the confusion by, in effect, prohibiting pesticide control regulations at any governmental level lower than the state.

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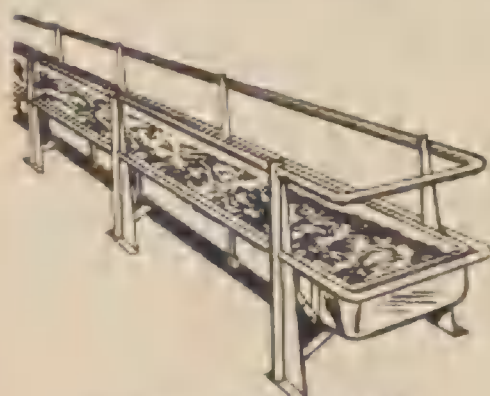
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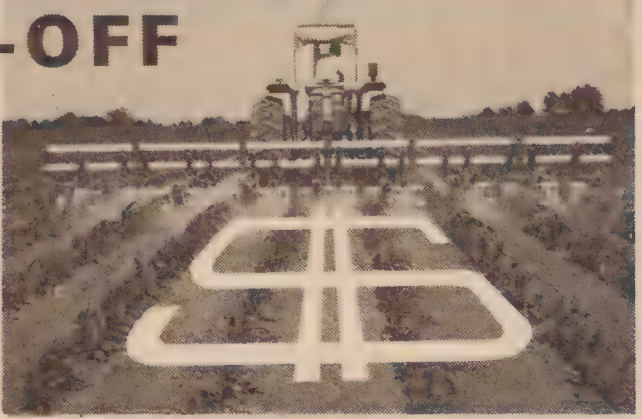
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Damage danger due to breakage?	None	Belt tears sometimes	Yes. Broken chain goes into blower
Cost of repair	None	\$70 Est.	Could be very high.
Degree of Safety	High. In protected location	Medium	Medium
High flight prevents bridging?	6"	1/2"	1"
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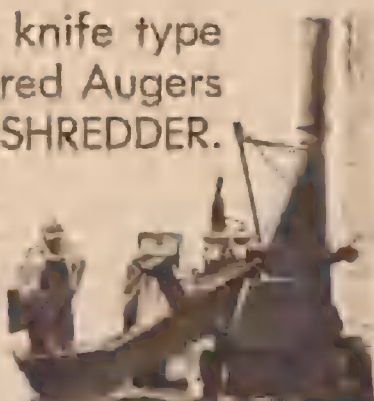
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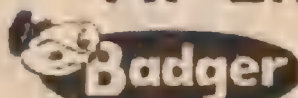
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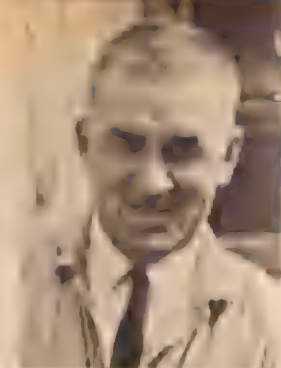
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Doc Mettler comments on:

A different view



A VERY wonderful lady who delivers eggs in our area said one day, "When you have good news you like to be able to tell your friends." Following her advice, I would like to tell you about a trip my wife and I took this spring through parts of England and Switzerland, and a few miles into Italy, Austria and West Germany. Much of our time was spent in areas not usually on the tourist's itinerary, so I feel that we had a chance to see these countries from a different view than most people.

This trip was the result of a promise my wife and I made to each other when we were first married, to visit Switzerland on our twenty-fifth anniversary. Trips by two of our children as exchange students, and a visit to our home by a Swiss exchange student, made contacts in England and Switzerland that we could not have had under other circumstances.

Experiences

In order to be in Switzerland when the cows were moved to the high pastures, we scheduled our stop in England first. As it turned out, freak weather conditions changed the dates of the cattle going to pasture so we did miss this. But we had dozens of other wonderful experiences, many completely unexpected.

I believe I can best relate my experiences by writing my impressions of things as I saw them. Many are not related to veterinary medicine or animal husbandry, and are perhaps trivial. On the other hand, life is made up of trivial things that combine to make up a whole wonderful experience. Those who are too sophisticated to be interested in the little things in life must often be bored with the big things, too.

The first of our unexpected experiences happened the first evening in London. We had arrived early in the morning after an all-night flight, and by noon were walking about the city like any other tourist. In late afternoon, as we headed back to our hotel, we were standing on a corner trying to orient ourselves with a map, when an elderly gentleman stopped and asked if he could be of help.

Friendly

Had this been New York City I am sure we would have been suspicious, but here it seemed different, and was. He visited a moment, then suggested that if we would like to see it, the "Beating of the Retreat" would take place at six that evening on the Horse Guard Parade Ground. He pointed the way and left.

This was the first of many times the same thing happened in London. I have never seen friendlier people. The cold, unfriendly Britisher may exist, but we did not meet him. Our impression of the English people is one of warmth and true friendliness to Americans.

To get back to the Beating of the Retreat, this is a ceremony put on four times a year to celebrate the Queen's birthday. We arrived at the area half an hour early, but found the stands packed. Again a friendly person suggested a place where we might stand and see the whole performance at no cost.

Some of you may have seen the Queen's Own Guards when they toured the U.S. In addition to a mounted band, there were four foot bands massed, making 420 on foot and 40 on horseback. My first impression of the horses was that they were perfectly matched, immaculately groomed and attired. They did everything to perfection, whether it was a complicated military movement, or just standing motionless, mounted by an equally motionless guard, for hour after hour.

Something seemed wrong to me that I could not bring into perspective until I saw a police officer on a pretty gray with a small, well-proportioned Arabian-type head. Other than that one gray, every other horse, and we saw dozens of them, had an overly-large, common "jug" head. Perhaps someday someone can give me a reason for this.

The following day we watched, as all tourists do, the Changing of the Guard at Buckingham Palace. Again horses dominated the picture: carriages with two-horse or four-horse teams went by continually. I found the horses, their trappings, and the carriages far more interesting than the guard-changing ceremony.

London is a great place to walk once you get used to the traffic coming at you from the wrong direction. One is supposed to like London because of its historic buildings. Huge, empty cathedrals are cold, and leave me cold.

Liked the Food

I liked the people and I liked the horses, but almost as much, I liked the food. Our daughter, who had been in England, had given us a list of foods we just had to try. This list included the usual fish and chips, kidney pie, Yorkshire pudding, etc., but more interesting were such things as cold pork pie (like the head cheese my father used to make, but with a pie crust cover), lunch in a real pub (there are thousands), and tea at Brown's Hotel.

We were also told to try Cornish pasty, which we couldn't find, and fried sausage, eggs and tomatoes, which we did find and liked. In one restaurant I ordered mutton, which turned out to be the best lamb I have ever eaten. I even tried gulls' eggs on a dare from my wife. They were served hard boiled and tasted like any other egg.

A train trip from London to Bradford (an industrial city 120 miles north of London) was a memorable experience. The train was immacu-

American Agriculturist, August, 1972

late and the ride as smooth as an airplane.

Again, people were friendly. One man, whom at home I would have taken for an English professor, was native to the Yorkshire area we were going to visit. He explained that some people loved the industrial midlands for their very grimness.

Yes, they were grim. Things all seemed either green or black, but if you looked further you saw the flowers, the well-kept gardens and the ever-present sheep, cows and horses. Not a thing seemed out of place, no beer cans or litter. There was an occasional junk car, but nothing like the acres of junked autos we see here at home. The sky was blue when the sun shone, and smog, even in the larger towns, was negligible.

Good Looks

I have always heard about the beautiful complexions of English girls. Both young men and young women have an appearance of natural good looks and beauty I have never seen anywhere else. Some say it is from the damp climate, lack of central heating, and a dozen other reasons. Regardless of the reason, it is a fact that exists both in rural and city areas. A logical question to a veterinarian would be whether the dogs in England have less skin trouble. I found it more interesting to look at the beautiful young women and forget about the dogs!

Some of you may have heard an old English ballad from the midlands about "Walking Ilkley Moor Without a Hat." We walked about four miles across Ilkley Moor in a driving wind and mist. It was like something out of "Wuthering Heights."

Sheep pasture on the moor, but what they eat is hard to say. We put out two grouse... larger than our native ruffed grouse... and saw a few other birds, but mostly the moor is wild and seemingly lifeless, except for the sheep.

After we had walked for close to two hours in the wind and mist, the sun suddenly came out as we neared two huge rocks called "cow and calf." It was nice to see the sun, but even though I was wet to the skin I was sort of glad to have seen the moor the way it is depicted in story... bleak, wild and never-changing.

This was the first real hike my wife had taken since she broke her leg while skiing over a year ago. I was proud of her, as I knew the slippery footing must have made walking very difficult. She never complained.

Yorkshire

Farming in Yorkshire is mostly grass oriented, though we did see barley and even an occasional field of newly-planted corn. The lush green of everything seemed unreal at first. Seeing sheep in pastures so lush that I would have been afraid to turn even dairy cows out in them was a surprise, too.

The flat-land farms on the vale of York are neat, well-kept and modern, but one has only to drive a few miles into the hills to go back a hundred years. Here we saw green fields surrounded with black stone walls four feet high that had stood there since before Columbus set sail and looked as though they would stand a thousand years more. The

farmhouses and barns combined are black stone too, and just as solid as the stone wall fences. It was not unusual to see a horse pulling a wagon with a small "Dairy Products" sign, and a moment later have a sleek, modern sports car roar by.

The cattle I saw were fat and sleek, of no particular breed. One interesting herd was a small one of belted cattle of, I suppose, Dutch Belted ancestry, but with brindle as the dark color.

Nowhere in this hill country did I see an unkempt fence row. Everywhere the use of fertilizer was apparent, with the darker green streaks of the fertilizer spreader quite noticeable.

As we rode and walked I kept thinking what an important factor

rainfall is in this world. I thought of the brown and gold of our own West in contrast to this dark lush green. If man can get the water to the right places (and I am sure he can), the people who say we are going to starve ourselves off this planet in fifty years will have more than just their faithless words to eat!

The jokes about lack of heat in English houses is no joke to me. I wore socks to bed and shivered in church. Our English friends were used to it and took great sport in needling us as soft, spoiled Americans.

Our short stay in this beautiful part of England has only whetted my desire to visit further north in Scotland. We did see such places as York, which was founded in 71

A.D., and the restored village of Haworth where once lived the Brontës of Wuthering Heights, but the rural area, the farms, and people who are farm-oriented, are what I really enjoyed.

There is not room here to write about everything we saw and did; these are just a few of the more memorable experiences. We left England with an immigration officer apologizing to us for the bad weather, and with a peek at the White Cliffs of Dover as the plane went over the Channel. Next issue I will write some impressions of Switzerland with the hope that many of you will, if you have not already done so, be able to someday cover some of the same areas that we did.

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Aesthetic logging creates income for landowners . . . but retains beauty and recreational usefulness of woodlands.

Tiptoeing through the treetops

FORESTRY is no stranger to most rural landowners. Most of these folks understand the principles of harvest-grow-harvest, but many refuse to cut mature timber . . . the result being that only the wood beetles benefit! A leading reason landowners do not harvest their mature timber is that they value how their woods look more than they value the extra income they would receive from a logger.

Good News

For these people, here is good news. Some progressive logging operators now offer what is becoming known as "aesthetic logging." Aesthetics . . . that branch of philosophy dealing with beauty . . . may not be what you would expect in a logger, but most loggers are businessmen who know a good deal when they see one.

They also know that times are changing, and that to stay in business they have to provide more than so many dollars for so many board feet of wood. They must also provide the kind of service expected by the landowner . . . if it's natural beauty that's wanted, that's what aesthetic logging can provide.

No two landowners will expect the same in a customized logging job, but success on any particular piece of property depends on two things: a contract, and a reasonable reduction in the stumpage price to compensate the logger for his extra time and effort.

There doesn't have to be anything complicated about a timber sale contract; anyone who would sell without one is being careless and rather foolish. Local

(Continued on next page)



The gypsy moth can be devastating to the environment . . . as is dramatically illustrated in this picture, taken along a highway near Barnstable, Massachusetts. The forest on the right was defoliated by hungry caterpillars, while the trees on the left were protected by a pesticide spray.

The owners of defoliated forests suffer financial loss, of course, but perhaps society as a whole also suffers from the silent summer in areas where no leaves rustle in the summer breeze. Photo: USDA

service foresters can supply the details. In New York, Conservation Department foresters provide sample contract forms that can be duplicated and used simply by filling in the appropriate blanks. Any lawyer can draw up a simple contract; some timber or pulpwood companies have standard forms.

A contract becomes the key to aesthetic logging in that any number of reasonable provisions may be added. For example, to prevent impenetrable "jungles" of tops and limbs, the contract may require cutting (lopping) all slash to lie no more than three or four feet off the ground. Not only is this visually more pleasing, but it also permits easy movement through the stand and hastens decomposition of the wood by rot organisms.

Provisions

Other "aesthetic" techniques (and contract provisions) might include laying out logging roads to blend into the scenery, directional felling using cables and wedges to protect the younger trees, low stumps, and no-cut zones. Still others could require clear-cut zones to open vistas, leaving specific trees having unusual artistic or sentimental values, or smoothing log landing areas and seeding with grass after logging. Some people require that logging be done only in winter to reduce damage to roads and trees left in the residual stand.

In some extreme cases, such as parks or estates, we may even see a revival of the use of horses for skidding logs. No machine has yet matched old Nellie in the ability to skid logs with a minimum of damage! Another

revival we may see is the increased cutting of fireplace wood. Some loggers see profits in this market (urbanites are paying up to \$40 a cord delivered), and find it a good way to get rid of unwanted slash in an aesthetic job.

Lower Price

When a landowner values how his woods look, he should be willing to forego a portion of the income he would get by permitting an "anything-goes" logging job. The logging operator can estimate the additional man-hours needed for the job and adjust the stumpage payment accordingly. Even though the landowner does not receive full

stumpage price, he still benefits from some income and in addition has the satisfaction of being able to manage his woods for future crops of higher value.

Aesthetic logging has become especially popular in Massachusetts. Loggers there are finding about 90 percent of the landowners request this method if they are informed about it. In New York, a Cortland lumber firm recently logged a Girl Scout camp using aesthetic techniques. Although the job was originally opposed by some doubting members of the camp leaders, its completion resulted in a financial boost to the camp coffers . . . as well as the unanimous approval of all concerned.

If you value the beauty and recreational usefulness of your woodlot, but realize that proper management calls for improvement cuttings and harvests, aesthetic logging may be your solution. Why not ask a professional forester for more information?

An Extension bulletin is also available on the subject. Write for Publication No. 440, "Timber Harvesting and Forest Aesthetics," Department of Forestry and Wildlife Management, University of Massachusetts, Amherst, Massachusetts 01002.

Extension forester John Noyes reports this publication is available for 15 cents per copy.

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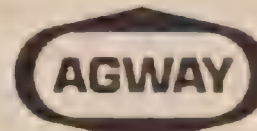
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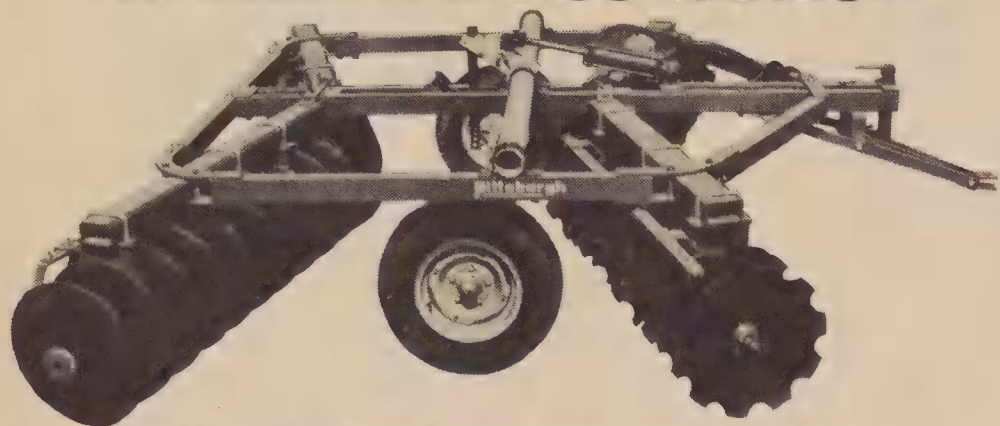
Renewable—Professional foresters point out that wood is often produced on poorer soils, and always by direct use of solar energy. They point out that logging, milling, transportation and use of lumber and other wood products for a home takes only 1/38th as much power and fuel as an equivalent structure of aluminum.

To leave forests in their natural and unharvested state, they argue, denies people the use of a resource that is renewable . . . and one whose well-managed harvest does not disrupt the ecology.

Forest Films—A descriptive list of films about forests is free on request to community groups and schools. The films listed are available on free loan to the audiences. They are in 16mm sound and color and range between 15 and 28 minutes in length. Mail requests for the folder "Films About Forests" to: Modern Talking Picture Service, 2323 New Hyde Park Road, New Hyde Park, New York 11040.

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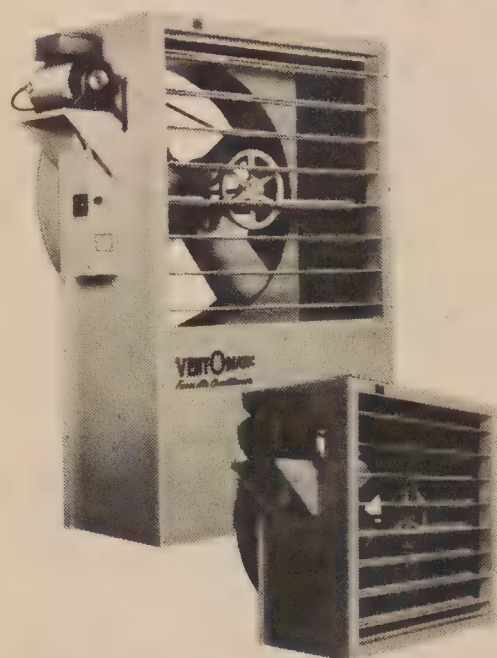
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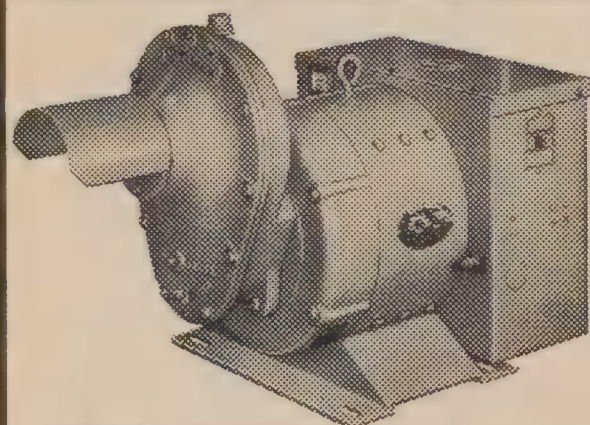
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Poultry farmer asks

can they close me down?

WE have 60,000 layers on our Clarence, New York, farm with 48,000 in the two cage houses and 12,000 in the slat house built in 1961. We produce about 2,000 gallons of manure per day (8 tons) from the two cage houses . . . and approximately another 1½ tons in the slat house.

Until we started with cages, we were able to handle our manure with conventional manure spreaders as it was fairly dry, although occasionally in the partial slat house, we would have to plug the back end of the spreader with a wad of straw.

Anaerobic

At that time, the emphasis from the colleges and Extension Service was to go liquid for easiest handling, and it is much easier to handle with a pump or with a vacuum tank. True, due to the liquidity, more material is handled efficiently, but it very quickly becomes anaerobic . . . that's the big problem.

We are certain this problem was encountered by many others at approximately the same time because many systems of covering have been shown in pioneer stages at meetings since then: spread and plow; spread, then plow; plow, spread and disc; and a new implement called a soil injector that fastened right onto the tank-type spreader used to haul the liquid manure.

There are now several companies making these soil injectors and, from our disappointing experience, I would advise anyone not to purchase until he has seen the unit operate under his own conditions. We did not do this.

The injector unit we purchased didn't penetrate the soil well even when plowed and well worked up. So we continued the practice of spreading and plowing, or else spreading and discing.

Worked Well

This worked well for us with the tractors and equipment at hand, and we were able to get along quite well except when the ground was too moist or too frozen to be able to cover with a disc. An injector is of no use that time of year either. So we have to spread on top of the ground and use a masking agent.

We have not had complaints at those times as there are few people out when it's cold, and the wind changes enough that odors are not concentrated in one direction. But we are always in a state of anxiety. We know it smells.

We put in a large holding tank to collect it during those months when it would be difficult to spread . . . either because of inclement weather, or when the weather would be hot and humid with most people spend-

ing considerable time outdoors.

Then in January, 1971, we heard about a company that was using ozone to overcome odors by oxidizing the odor out of the air. They assured us they could also take the odor out of liquid manure.

After quite a little research into our problem and facilities, they came up with a plan to install an ozone generator on our manure holding tank with diffusers spaced in the bottom of the tank to enable ozone to be bubbled up through the liquid manure. From the experience of the Cornell researchers with oxidizing devices . . . such as the oxidation ditch and air compressor hooked up to a diffuser device in the bottom of the cage pit where they use plain air . . . we felt that ozone, which is O₃, would be even more effective.

Deposit

We put a deposit on this unit in March, 1971, and were told the installation would begin in late spring. Upon hearing from the company in late May to get ready, we knew it would be necessary to empty the holding tank. We went to work, and as we had a deadline to meet, worked long hours at it, from about 8 a.m. to 8 p.m., then plowed it under with a large tractor pulling five plows. We felt we were living up to the requirements of the law as they had been explained to us.

Unfortunately, we had a breakdown with our plow and some went uncovered over a weekend. The wind was from the south and blew toward a subdivision that had at one time been part of the farm on which we were spreading. We hadn't owned this farm very long, just since the fall of 1968.

It is one of the largest tracts in the township of Newstead, just south of the village of Akron, and has some of the best soil in Erie County. It has a gentle slope ideal for tile drainage, but not serious enough to cause runoff problems. It has large fields for maximum efficiency with modern equipment. We purchased this farm to grow more of our own corn, and also to have a place away from the home farm to grow replacement pullets.

Trouble

The weekend of our breakdown was it. Two petitions were circulated, and we were summoned to a hearing before the Erie County Air Pollution Control Board late in July. At this hearing, we explained our sudden need to empty the tank and breakdown problems, and were granted a month's extension to concentrate on the ozone generator. By the end of August, we had already changed to a larger-capacity unit

(Continued on page 40)

American Agriculturist, August, 1972



A home where the buffalo roam

by Clarissa Schweikert

ABOUT six years ago, it was a New York farmer's dream. Today, it's a herd of more than 40 buffalo grazing on the Charles Tucker, Jr. Homestead Farm, proving his belief that the bison can play a part in this country's nutritional needs.

"It was a challenge," Tucker admits. He began in late 1965 with the best 10 males and 11 females he could find in herds in South Dakota, Colorado, Maryland and Minnesota. Grazing, they dot the hillsides of the two buffalo pastures that combine a total of 125 acres of his 1,100 acres near Stormville, Dutchess County, New York.

It's a new face for the Homestead . . . in the Tucker family for over 200 years. Stormville was named for

Tucker's great, great, great grandparents. His sons are the ninth generation born here.

"I find the buffalo a simple, naturally healthy animal," Tucker says. "It needs a simple diet of good, strong grass from spring through fall, the best hay in winter. Grain should be fed to calves just as soon as they are old enough to eat to build firmer meat."

Tucker's average buffalo eats about 90 pounds of grass per day. Calves eat 15 to 20 pounds (in addition to grain) and proportionate amounts of hay in winter. To insure the best pastures, Tucker uses each spring a Scotch chain harrow to spread the manure evenly over the dead roots and stalks.

Looking toward the herds quietly sunning on the hillside, or drinking from clean streams that run between their pastures and the woodland, he explains, "Their transition from natural wildlife to domesticity is amazing . . . especially in their relation to other animals." You'll see no fences between their pastures and the cows'. "Couldn't care less about the cattle and sheep . . . just mind their own business, staying together rotating the two pastures at will as nature intended."

Some 300 school children, 4-H Club and Scout members each year get a truck-tour of the ranch. Asked why no high fences, Tucker says, "I explain that these rugged animals were born free, without fences; that they're less-roving than the cow or sheep, and once accustomed to their pastures, will return voluntarily if they discover they have strayed." The only fences necessary for the buffalo are those that separate their pastures from a public road or another farm, the rancher finds.

"Children expect to hear loud bellows," Tucker laughs. "They're amazed to learn that the only sound a buffalo makes is a slight grunt with which it calls its young, or expresses fright or danger."

Unlike our domestic cow, which calves in seclusion, the buffalo instinctively chooses the center of her herd for protection. Her average calf weighs about 60 pounds at birth.

Tucker's Homestead Farm slogan is, "Eat Our Native Meat." And a number of New Yorkers are doing just that. His initial butchering and

marketing of three 3-year-olds in January 1971, broke through what ranchers across the country regard as their number-one stumbling block. His customers cleaned out his freezers and asked for more. These included a Dutchess County cooperative of some 70 families.

Invited to speak before the group, Tucker and his wife Julia answered questions. The women had already found delicious ways to prepare the meat (which tastes like beef) besides the usual steak, buffaloburger and roast. They were delighted to learn that the National Buffalo Association's research report rates the meat high in protein, low in fat, and finds that it does not transmit allergies.

Tucker finds the market for buffalo meat, though still in its infancy, is no longer confined to the gourmet or novelty alone. Having first proved its deliciousness on his own table, he is not surprised at its acceptance by the average solid-nutrition seeking American housewife consumer.

Some six years of ranching find Tucker's enthusiasm growing. He sees advantages to the enterprise and a future for the rancher and the buffalo meat industry.

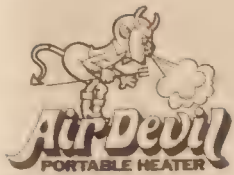
"The buffalo adapts well to domestication," he says, "but should, in my experience, be allowed a few of its natural, instinctive traits . . . self-rotation of pastures and self-propagation."

As members of the NBA, Tucker and his wife find added enthusiasm with each national convention. The 125 members own a combined total of over 15,000 buffalo in this country.

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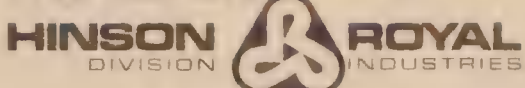


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Close me

(Continued from page 38)

for making ozone, and not enough time had elapsed to get a good test. We were granted another month's extension.

In the meantime, we tested and weren't satisfied. We felt we needed more pressure in the lines and more diffusers. We had to work out a different spacing for holes and size of hole in the diffusers to keep up the pressure. We also had a break- down with the manure pump, which is made in Sweden. This took a little time to locate a dealer with the right parts.

At the end of September, because of the problem, breakdowns and changes, we were unable to satisfy the county attorney with our progress. However, another month's extension was granted. About this time we began to get anxious... the pressure was on. To compound mat- ters, a member of the Air Pollution Control Board had to be present whenever we spread manure. These arrangements interfered with the testing of the ozone equipment and held back our regular cleaning-out jobs.

Explanation

In an attempt to clarify our posi- tion, we wrote a letter to the direc- tor of the Erie County Air Pollution Control Division on October 14. We explained our circumstances in de- tail, adding that with the fall weather fast upon us, we needed to move manure out as quickly as pos- sible without the constant surveil- lance of his board. We assured him that we intended to keep working on our problem with the utmost dili- gence.

We pointed out that the odor had been reduced quite a bit, and that complaints had been called in to his department from some Akron neighbors on days when we weren't even spreading . . . and had not spread for several days. We further requested that a panel of objective people be called in for opinions on this.

At the final hearing on October 21, our attorney received word that because complaints were still coming in against us (even on those days we weren't out on that farm at all), the prosecuting attorney felt we should be stopped from spreading on our Akron farm completely. Our attorney felt he could come up with a com- promise. The settlement was that we be fined \$100 for each of two violations, that we be allowed to spread or do anything we wanted as long as we were able to keep from having neighbor complaints, and that we would be out from under the constant monitoring.

Bad Deal

Personally, this type of settlement was repugnant to us. It seemed that we were buying our way out instead of fighting and winning. But after all the delay we had for three months, we were anxious for any kind of settlement that would en- able us to work in an efficient manner.

Some of the feeling against spread- ing manure or injecting manure is just wrought-up emotion caused by the present emphasis on ecology, and also the fact that some of those

neighbors mistakenly believed that we had purchased the Akron farm so we wouldn't have to put the manure on the Clarence farm where we live.

No Smell

We're almost sure that no actual smell is required to stir up some people. All they need to upset them would be to see us driving down the field with the spreading tank without one drop being spread, and I'll bet the phone would start to ring at Air Pollution. The phone number is shown constantly on TV and in the newspapers. They have someone to call, someone who will do some- thing about it. They feel like heroes stopping a polluter villain.

No one's health is actually en- dangered by the smell of manure. It brings to mind the accidental dump- ing of millions of gallons of raw sewage into Lake Erie last summer by the city of Cleveland. Several weeks later the disagreeable taste of the water in Buffalo was officially blamed on the weather being favor- able for the growth of algae.

The gullible citizens drank the water without even questioning it. We did notice, though, that some of our egg customers and relatives began to show up about this time with containers for taking home some of our good well water!

More Objection

In our case, after the ozone treat- ment, we felt the odor was so re- duced that there should be no com- plaint, and so did the representative of the equipment company, naturally enough. But the complainants ob- jected strongly; they want absolutely evidence in the air when we are spreading. I say this is an impos- sibility.

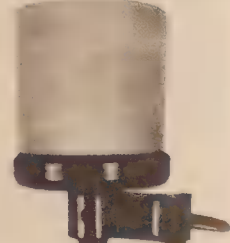
We don't mean to find fault with the prosecuting attorney, and must admit that all the men from the De- partment of Environmental Control were very cooperative and under- standing. But we do find fault with the law . . . the part about forbidding anything that interferes with an- other person's full use and enjoy- ment of his property.

My point is that the law is much too broad. There is a definite need for an objective third party. There is every reason to go slow as there is no definite solution, no set of recommendations that can be made for all to comply with. We must give technology a chance to catch up.

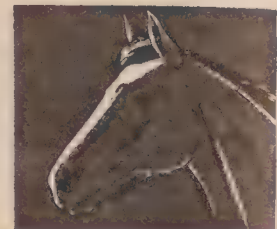
It's time someone stands up to be counted as being on the side of farm- ers. When someone can show effort and willingness to expend time and money, to try to correct a problem, not just make promises, he should be applauded. He should be aided, if possible, with technical . . . even financial aid, rather than given the additional expense of defending him- self in court every 30 days.

After all, there are worse prob- lems in the municipalities with hu- man sewage... such as the Cleve- land case I mentioned... one only needs to read the paper. Let's not make a scapegoat of agriculture to the point where anyone using modern, accepted agriculture prac- tices could be actually closed down in New York State! — Henry J. Kreher, Clarence, New York

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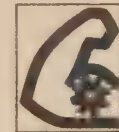
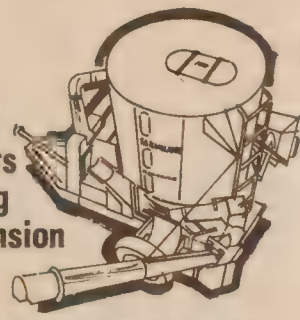
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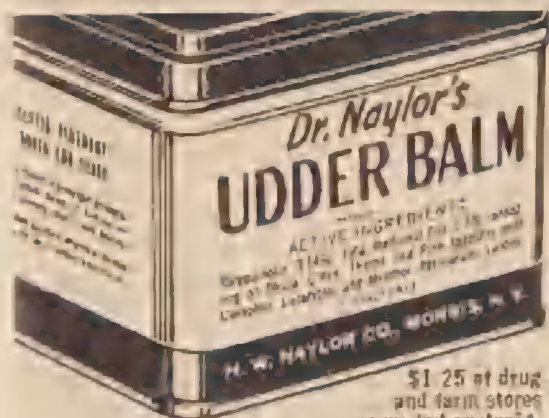
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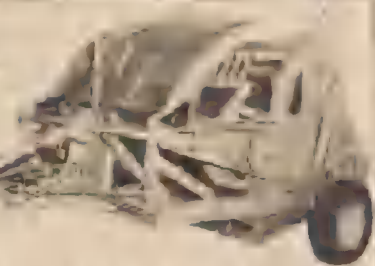
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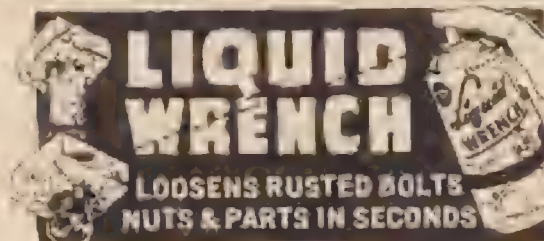
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Dollar Guide



FLOOD DAMAGE suffered by farmers in New York and Pennsylvania as a result of hurricane "Agnes" is enormous ... Commissioner of Agriculture Frank Walkley estimates \$100 million in New York alone. Farmers Home Administration officials in Pennsylvania estimate agricultural damage at \$126 million.

Reassessment of environmental priorities has been called for to prevent repetition ... flood-control structures have been demoted in relative importance as other environment-enhancing programs have ascended in priority.

APPLE CROP in Vermont and New England predicted down because of unfavorable weather. Nationally, crop is forecast down 7 million bushels from 1971's 152 million.

National peach crop predicted 12 percent below last year ... down 47 percent in North Atlantic States.

MEAT IMPORT QUOTAS have been removed, and downward pressure will be placed by this move on cull dairy cattle prices. Most of imported meat is the "manufacturing" type used for ground and processed items ... as is most of cull dairy beef.

Meat imports for May were up 41 percent over May 1971.

EGG PRICES are predicted by Poultry Survey Committee to average 39 cents per dozen for 12 months beginning July 1, 1972 ... 37 cents July-September, 41 cents October-December, 42 cents January-March, and 36 cents April-June.

Among major northeastern egg-producing states, May production in 1972 as compared to 1971 showed New York and New Jersey down ... Maine, Massachusetts, Connecticut and Pennsylvania up.

GOOD-QUALITY FORAGE will be in short supply on many northeastern dairy farms next winter, due to adverse weather. Look ahead and make plans for getting higher percentage of milk-making nutrients from grain.

FARM EXPORTS from the U.S. amounted to \$7.8 billion in 1971, are predicted to be more than that this year. Big fight over protective tariffs going on in Congress; nation's agriculture as a whole stands to lose heavily if U.S. moves to freeze out foreign products ... because other nations sure to retaliate against our exports.

APPLE MARKETING ORDER, which for years has required growers to finance marketing and promotion activities in New York State, approved by 555 growers (69 percent) of the 797 who voted. Those voting represented 53 percent of state's apple growers, and 83 percent of the apple production.

Although 400 growers signed a petition requesting a referendum on the existing order, only 242 voted against its retention.

ALFALFA WINTERKILL was very bad last winter. One way to reduce it is to observe the no-cut period during the 4 to 6 weeks before killing frost in fall ... so plants can lay down reserves for winter.

SUPPLY MANAGEMENT for the northeastern dairy industry is desirable ... so contends Prof. Truman Graf of the University of Wisconsin. He cites as reasons: declining per capita consumption of milk, expanding milk production, and constant inflation that jacks up farm costs.

He believes there are 4 choices: lower farm milk prices, increased dairy sales, increased government expenditures on price supports, or supply management ... names the latter as most reasonable (and attainable) way to go.

SHEEP OWNERS in Pennsylvania (1600 of 'em) have been surveyed. They report two major production problems to be (in order): fencing and limited profits. The same two problems were also listed as major reasons for rapid decline in sheep numbers there.



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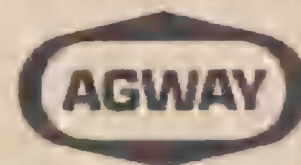
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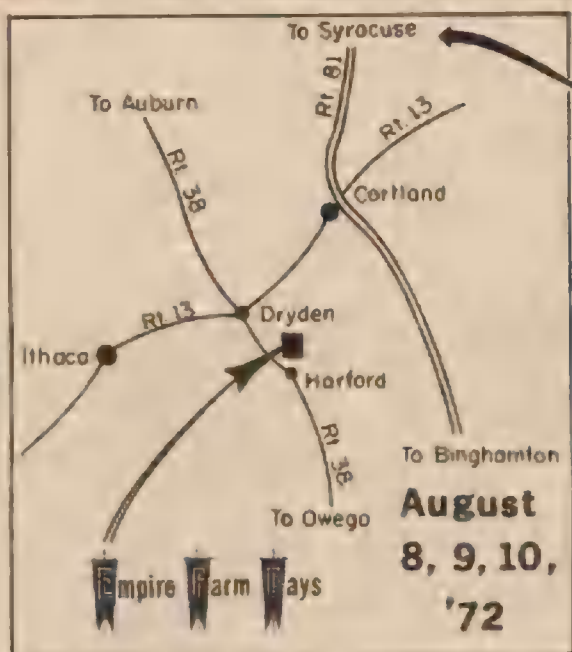
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**Come to
Empire
Farm
Days**

We think Mrs. Jean Schwartz of Earlville has lined up a great women's program for Empire Farm Days, to be held August 8, 9 and 10 at Cornell University's Teaching and Research Center, southeast of Dryden, New York. Each day the program will begin at 10:00 and run until about 3:30 in the afternoon.

At 10:30 each morning, Professor John Alden Haight, N.Y.S. Agricultural and Technical Institute at Morrisville, will talk on Gardening Plans and Problems. Professor Haight will also have the last spot on Tuesday and Thursday afternoons, when his topic will be English Gardens. Each day about noon, there will be a Milk-Punch break, while Miss Farm Bureau and various Dairy Princesses from New York State bring greetings

is a long-gone luxury. Name calling and tests of strength can produce much heat, but very little light. — Warren H. Lauder, Kennett Square, Pennsylvania.

PAYING STRIKERS

I am sending you a copy of a resolution I recently submitted to the St. Lawrence County Board of Supervisors . . . a resolution calling for an end to unemployment insurance benefits for strikers. I made this resolution as inoffensive as I could in the hope it would be passed, and get the ball rolling to show the foolishness and unfairness of some of our state laws. In fact, it is far too weak.

Although I knew this measure would probably be defeated under our weighted voting system, I was appalled at the lengths to which labor leaders would go to insure its defeat . . . and at the lack of courage shown by some of the other board members.

I know your position on such matters. I think it might be time to again remind your readers of the unfairness of some of our state labor laws, the great cost of strikes, our balance of trade deficit, the great cost of welfare and some other matters which hurt the economy of this state and nation and cost the taxpayers millions of dollars every year.

Briefly, my position is this: that any elected official, from the governor to the lowest town official who feels he must yield to pressures . . . any official afraid to cross party lines, if necessary, to go on record and vote as he honestly sees fit, should never be supported at the expense of taxpayers of this or any other state.

I think we should all once more try to put power and right of decisions back in the hands of the people who are paying for it. — Murray Mayhew, Town of Depeyster Supervisor, Rensselaer Falls, New York.

to the women visiting Empire Farm Days.

Other features are as follows:

Tuesday, August 8

11:00— 4-H Demonstration

1:00— Something Out of Nothing — Mrs. Carl Yunker

2:00— Women in Politics . . . Now

Wednesday, August 9

11:00— Electronic Cooking — Elizabeth Wilson, N.Y.S. Electric & Gas

1:00— Pin Painting — Vivian Wood

2:00— Greetings from Mrs. Esther Twentyman, New York State Fair

2:30— Beef Story — Jean Schwartz

3:00— Variety Program—Gary Swan, New York State Farm Bureau

Thursday, August 10

11:00— Maple Syrup

11:30— High Fashion Sewing — Lyla Emmons

1:00— Women in Business — Miss Norma Thomas, First Trust & Deposit Co., Syracuse

1:30— Town Planning

2:30— Panel Discussion—Farm Bureau Working, Not Waiting

American Agriculturist, August, 1972

BATIK - an old craft revived

by

Dorothy Welty Thomas

Batik is an old oriental craft, native to Indonesia and Malay. It has probably been practiced to some extent in all of the Orient. The Javanese made elaborate altar cloths, and some of the royal families had designs that were sacred to them.

Batik is a negative sort of process, in that you "paint" with hot wax the parts of the cloth where you want to retain the original color, and then dye the cloth. The waxed parts will resist the dye. The process can be repeated in a series of colors. If you want contrasting colors, such as blue and orange, you have to remove the wax altogether and start over with the second color series.

The process is also imitated by modern commercial techniques, so you can buy a "batik" that is not handmade. Blouses, place mats and runners can be made in batik. I have also made dresses and bedspreads. At one time batik lamp shades were popular in this country.

The luncheon set illustrated was originally a piece of natural linen-colored Indian head. The lightest parts were waxed and then the whole dipped in green. Next, the parts to remain green were waxed, and the whole dipped in a mixture of red and brown to obtain a rich chocolate-brown on top of the green. The pattern is reversed on the napkins; they have a light background with dark flowers, while the cloth has a dark background and light flowers.

No Elaborate Equipment Needed

Elaborate equipment is not necessary to practice batik. First, you need a design that is fairly coarse and open with curved lines. You can trace this from another fabric, use an embroidery pattern and simplify it, or make a design yourself.

The design on the pillow cover illustrated is simply a series of overlapping circles drawn with a compass in a hit-or-miss fashion. Make the drawing on thin paper and ink it with black India ink. If you do not have architects' tracing paper, use onion skin letter paper, pasting several sheets together.

After you have your design, decide on the material. It should be an unmixed fabric, such as all silk or all cotton. Unbleached muslin works very well. Wash and iron the fabric. Scotch tape the design to a large window pane and tape the cloth over it in the proper position. Trace the design onto the cloth with a fairly soft pencil.

Next, you will need beeswax and

paraffin. One part beeswax and two parts paraffin will give you lots of "crackle," the effect created where the dye runs in the crack lines of the wax. Paraffin is more brittle than beeswax, so if you want only a little crackle, use half beeswax and half paraffin.

You will also need a frame on which to tack the cloth while you are painting on the wax. Saw two yardsticks in half at the 18-inch mark and bore two or three holes at one-inch intervals from each end. Use bolts and thumb nuts to put the corners together. You may also need a washer. The several holes are to permit adjusting the frame to different sizes. The bolts make legs.

You're Ready to Start

Heat the wax in a double boiler and be careful not to spill wax on an electric element or open flame. An electric hot plate is ideal for heating the wax, but I have used sterno canned heat and the little stove that comes with it. The hot plate is safer.

The Javanese use a tool to apply the wax. It is called a "tjaning" and is a small copper bowl about 1 1/4 inches long, with a spout and a handle. They heat the wax in this, and when the drop which coagulates at the end of the spout is brushed off, the wax flows in an even line wherever the artist wishes.

The wax should be hot enough

to penetrate the material, and it takes a little practice to anticipate how much wax will flow beyond where you brush. If it brushes on white, it isn't hot enough. Turn the cloth over and touch up the underside where the wax didn't flow through. Check very carefully to be sure you have waxed all the areas that should be waxed.

Then prepare the dye bath. Dissolve any kind of dye in boiling water and add cooler water to make enough dye to comfortably cover

the cloth at a warm, not hot, temperature. Wet the fabric first. If you want a lot of crackle, wet it in cold water and crush it in your hands; then put into the warm dye bath. Swish it around and let it soak at least ten minutes. I used two packages of dye for each dye bath for the luncheon set and one for the pillow cover.

The colors will not be entirely fast, but dipping them in cold water after the warm dye bath will help set the color. Let dry and repeat for each subsequent color, that is, brown over green, dark blue over light blue, lavender over pink, etc.

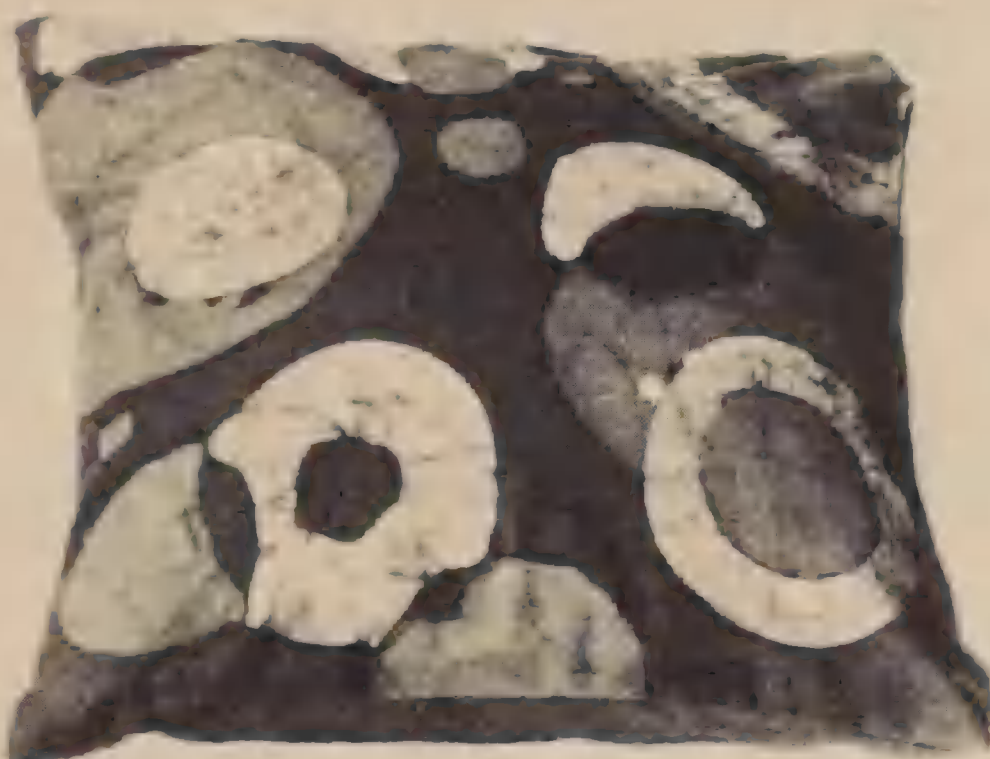
When completed and dry, iron between several layers of newspaper with a dry iron to remove most of the wax. The remaining wax will have to be removed with gasoline. Be sure to use the gasoline out of doors and away from flame. You will probably need more than one gasoline bath to get out all the wax from a fairly heavy material. You may prefer to have your dry cleaner do this for you. It will cost no more than an ordinary dry cleaning job.

Avoid laundering the article as long as possible, and it would be better to have it dry cleaned. If you do wash it, use cold water (never hot) and a cold water detergent.



A luncheon set made from Indian head cloth, natural linen color. The napkins are light and the cloth dark, for contrast. Colors are brown and green.

Photos: C. Hadley Smith



Pillow with abstract circle design in rose and brown. Also made from natural color Indian head.

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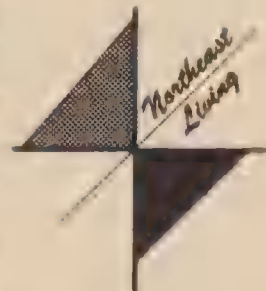
August 8, 9 and 10
at Cornell Animal
Science Teaching and
Research Center, off
Rt. 38, a few miles
south of Dryden, New
York.

GARDEN TALK

by Doc and Katy Abraham

Pine Needle Mulch

Many AA readers are tossing away their pine needles when there's no reason they couldn't use them for a garden mulch or around shrubs and evergreens. They may not break down readily because resins and turpentine counteract the work of fungi and bacteria, but this could be an advantage. Just about the only disadvantage is that they may become a fire hazard during the dry season. Don't let this discourage you from using any kind of a mulch.



When it comes to nutrients, pine needles (as well as those of other evergreens) have a meager supply. They contain about 1/2 of 1 percent nitrogen and even smaller amounts of phosphorus and potash. Their main value lies in the organic matter which eventually goes into the soil. They also prevent moisture loss and help keep weeds out. We hope you've been saving your grass clippings, as these contain a very large percentage of nitrogen and also add humus to the soil.

Why Peonies Didn't Bloom

If your peonies did not bloom last spring (1972), it doesn't mean you should dig up the plants and destroy them. There are several reasons why peonies fail to blossom. One is too much shade, especially in dry soil under trees. Planting too deeply is another cause of poor flowering. Young developing buds or "eyes" of the roots should never be planted deeper than two inches below the soil surface.

A fungus disease (botrytis blight) is also a main reason for non-flowering. It is associated with a wet, rainy spring. Buds come out nicely and when about the size of a pea, they turn brown, then black, and finally shrivel up without opening.

Ants are often seen on peony buds. They collect nectar produced by the developing buds but do not seriously damage the plant. They do not pollinate the plant and are not a cause of non-flowering. Nor do they spread disease.

If peonies are in need of transplanting, now's a good time to do the job. Take a shovel or spade and slice off a chunk of the roots. While peonies will do best in full sun, they keep their blossoms longer if grown in semi-shade, which they seem to take quite well. Avoid heavy shade, as it prevents flowering.

Summer Squash

Are you one of those gardeners who raises summer squash but lets it go to waste on the vine? Squash is one of the best vegetables we have, and it's also one of the least understood when it comes to cooking. There's no reason squash should taste like a can of baby food! There are dozens of excellent

squash recipes which taste almost as good as meat dishes. Here's a good one . . .

Vegetable-Zucchini Casserole

Potatoes and young zucchini squash, thinly sliced; green peppers, cut in pieces; fresh tomatoes, quartered or sliced; semi-hot green peppers (or a few drops of tabasco).

Butter a large casserole dish, put layers of vegetables in dish in order given. Dot each layer with bits of butter and sprinkle with salt and pepper. Bake 1 hour, 20 minutes in 375° oven, or until potatoes are done.

You may not care for the tang of hot pepper, but it does a lot for the casserole. This makes a meal in itself. With the addition of hot rolls or biscuits and a light dessert, you're all set!

Free Bonus: If you would like a bulletin of squash recipes, send me (George Abraham, Naples, New York 14512) a self-addressed, stamped envelope for your copy.

Cure For Tired Turfs

If parts of your lawn are full of brown grass stems, it could be the work of grubs. A scattering of Sevin or another pesticide will help check the pest. If no pest is present, take a bamboo rake and rake out mature foliage; sever some stolons or rhizomes, and you'll notice a flush of new grass growth.

Feeding your lawn in early August is good for stimulating grass and for freshening up a tired turf. Scatter seed over the surface (rough it up first with the rake), and you'll find that some grass will fill in. Not all grass seed will find favorable rooting conditions, but overseeding a thin turf is still a good investment for beefing up a tired lawn.

AA Garden Clinic

A reader writes, "Tell your readers not to discard the tops of celery. The leaves are full of vitamins and can be dried slowly on top of the stove. Store in tightly covered jars for grinding later. They crumble to a fine powder in the palm of your hand and are ideal for soups and in spaghetti. Much cheaper than buying the flakes!"



TEMPTATION

by Virginia Howell

I sat in the sun for an hour today,
An hour that I stole from work.
I had so many things to do
That I knew I should not shirk.
But, oh, the glory of the sun!
It warmed me through and through;
And after all when the sun has set,
There will still be work to do.

American Agriculturist, August, 1972

There's much for women at

New York State's SUPER FAIR

In the Art & Home Center at the New York State Fair, you'll find all the things a state fair is known for as well as many things it isn't. Blue ribbon pies and other goodies stand close to some of the most sophisticated sculpture being done in the state! You'll find silent and contemporary films, dramatic productions, fashion shows, organ music, a musical instruments museum, crafts and home arts.

Dates for the Fair are August 29 through September 4. Wednesday, August 30, will be Women's Day, with the traditional luncheon where

AUGUST DROUGHT

by Mildred Goff

The parched earth cracks and yawns
with drought.

A hot wind, blowing from the south,
Dries up the blossoms of the phlox.
Sun bleached, faded hollyhocks
Droop listlessly upon their spires.
Seared corn blades rustle, stiff as
wires.

Pale dandelions strew their seeds
And nothing thrives, except the weeds.

Community Service Awards are presented.

"Let the Sunshine In" might well be the theme song for the 1972 Demonstration Kitchen. Bright yellow accents will add a super glow to the convenient, up-to-date slate blue kitchen.

Food means many things to many people, so the theme of the kitchen program this year is "Food — What's It To You?". Daily demonstrations by professional chefs, home economists and cookbook authors will explore traditional foods, good nutrition, special foods for dieters, and cooking as a hobby.

Feature demonstrations include one on organic foods by Eleanor Lynch and Mary Gale of Niagara Mohawk's Home Service Department and one on vegetarian diets by Dana Cordon of Union Springs Academy. New products will be featured in the kitchen's efficient walk-in pantry.

The kitchen's patio area will be "The Place for Gourmets" this year, with a complete display of gourmet cooking utensils and larger equipment. Nearby will be a display of fresh-growing potted herbs.



John Clancy, Time-Life TV Chef and test chef for the Time-Life Foods of the World Series, demonstrated his culinary skills in the State Fair's Demonstration Kitchen last year.

Fun for the Amateur Cook

The Culinary Arts Competition "Wonderland of Food" includes entries of every sort — from low calorie and other health foods to Hungarian strudel, Hawaiian spice cake and fancy Christmas cookies! Also, this year's competition for the first time has a section for casserole entries, with reheating made possible by Morgan Badgley Company loaning an Amana Radarange. Candy entries, including fudge and maple creams, are back too.

You can see just how a Sears Trash Compactor works; the special demonstration model has a glass front, so everyone can see what's happening!

The Crafts Department displays prize-winning entries in the fields of sewing, fine needlework, sculpture, ceramics, rugs, metal and woodworking. Also, craftsmen will be on hand to demonstrate silversmithing, pottery-making, china painting and stained glass-making.

The Auburn Children's Theatre will be at the Fair for the 11th year. In addition to their regular program of children's plays, clown acts and puppet shows, they will sponsor a workshop on puppet making. And if you're at the Fair on Tuesday, don't miss the Spelling Bee.

Truly, whatever your interests are, you'll find many things to see and do at this year's Super Fair!

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7362. Crochet 11 $\frac{1}{2}$ " doll wardrobe of fingering yarn. Pants, hot-pants, city shorts, cape, vest, tunic, two dresses, shawl. 50 cents

All Printed Patterns

9431 8-18

4583

10 $\frac{1}{2}$ -20 $\frac{1}{2}$



890



7362



7208



4845

10 $\frac{1}{2}$ -20 $\frac{1}{2}$



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4876. Popular dress plus tunic and pants. PRINTED PATTERN, New Half Sizes 10 $\frac{1}{2}$ -18 $\frac{1}{2}$. Size 14 $\frac{1}{2}$ (bust 37) dress 2 $\frac{5}{8}$ yds. 45 in. 50 cents

4845. Whip up pleat-swirled dress. PRINTED PATTERN, New Half Sizes 10 $\frac{1}{2}$ -20 $\frac{1}{2}$ Size 14 $\frac{1}{2}$ (bust 37) takes 2 $\frac{3}{4}$ yds. 45 in. 50 cents

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Bermuda is a magic island, a pastel land of coral and jade, where the sun almost always shines. There are all sorts of interesting things to see and do there. You'll sightsee in a horse-drawn carriage or a tiny taxi, driving around the island and exploring 17th Century St. George with its crooked streets. You'll want to visit Crystal Caves, the Devil's Hole, Sea Gardens, Ft. St. Catherine, the House of Assembly and Salt Kettle Settlement.

Hamilton will be your shopping headquarters. It's a veritable showcase for British products, all at exciting low-tariff prices. And of course you can sun and swim to your heart's content, play golf at the world-famous Mid Ocean course, fish in the surf, or go deep sea fishing for the big ones.

An all-day cruise on blue Bermuda waters is another delightful possibility. Included is a barbecue lunch on Treasure Island, calypso entertainment and stopovers in Mangrove Bay and Somerset for shopping, swimming and sightseeing.

Just tell your tour escort what you want to do while you're in Bermuda, and all arrangements will be made for you. Send for the folder

today and make your reservation soon.

Cape and Islands Cruise

Travel Service Bureau has arranged a delightful fall cruise to Cape Cod and several islands off the southeast coast of New England aboard the **New Shoreham** (launched in February 1971) from **October 23 to 28**. We'll visit quaint and beautiful spots, overrun by tourists during the summer but relaxed and serene to the fall traveler.

Here very briefly are the highlights of this fascinating trip. We sail from Warren, Rhode Island, down Narragansett Bay, past Newport, and across Rhode Island Sound to Block Island. After a sightseeing tour, we continue to Cuttyhunk Island, a primitive beauty whose only road is just three miles long!

We visit the southern part of Martha's Vineyard and then go on to Nantucket. We have a whole day to explore this island before enjoying an authentic New England clam-bake at night.

Woods Hole on the southern tip of Cape Cod is our next "port of call," and an interesting sightseeing trip of the Woods Hole and Falmouth area is scheduled. Oak Bluffs on the north side of Martha's Vineyard comes next and finally a last stop at Naushon Island.

Cost of this cruise is only \$284 to \$304, depending on type of cabin selected, and everything is included when you purchase your ticket. Informality is the key word, so bring only casual clothes...and make your reservation soon, for we can take just 60 people.

Our **Get Acquainted & Reunion Mixer** is getting to be a tradition, as many people look forward each fall to meeting with friends they've made while traveling with American Agriculturist and Travel Service Bureau.

(Continued on page 52)

Gordon Conklin, Editor
Box 370-T
Ithaca, New York 14850

Please send me without obligation on my part, the following tour itineraries:

Fall Foliage Tour _____ Cape and Islands Cruise _____ Reunion Weekend _____
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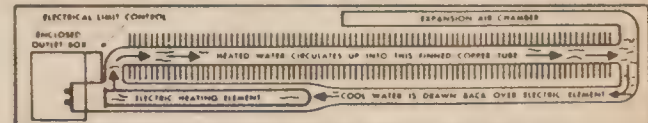
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by E. R. Eastman



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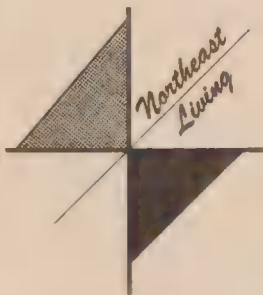
For a copy of this nostalgic book, well-bound and illustrated, send check or money order for \$7.50 (New York State tax included) to American Agriculturist, Book Department, Box 370, Ithaca, New York 14850.

Round the Kitchen

by Alberta Shackelton

Summer Punches

Cool and colorful thirst-quenchers served tall and handsome in beverage glasses or from an attractively garnished punch bowl make ideal summer refreshers. Fruit juices—fresh, frozen or canned—or milk or a combination of both are the bases. Additions of sherbet and ice cream in some beverages increase interest and variety.



A “make-your-own” milk drink party will be popular with the young set. Just provide a good variety of makings for floats, shakes and other soda fountain concoctions.

Punch Secrets—A big wooden salad bowl, gay mixing bowl, or scooped-out watermelon bowl as pictured make good substitutes for a regular punch bowl. Ingredients for punches should be chilled before icing.

For less dilution of punch, use a solid block of ice rather than ice cubes; also keep punch bowl only about half full and refill as needed from a pitcher. Dry ice gives an attractive misty appearance when used in addition to regular ice. Add any carbonated beverages at the last minute.

Punch Dress-ups—For “frosty” rims on beverage glasses, dip edge of each glass in lemon juice, then into granulated sugar and chill. Make “garnished” ice cubes by filling ice cube trays $\frac{3}{4}$ full of water, freezing, then topping each cube with mint sprig, thinly sliced citrus wedge, small fruits, etc., and freezing.

Make “flavored” ice cubes by freezing fruit juice or part of the fruit punch itself in ice cube trays, or by placing frozen concentrated juice in tray and filling with water and freezing. Tint cubes by coloring water with food coloring, grenadine, or maraschino juice before freezing.

A “fruit wreath” or “ice float” adds glamour to the punch bowl. Fill a ring mold (to fit easily into punch bowl) half full of water, freeze quickly, then arrange fruit and greens (peach slices, dark sweet cherries, strawberries, etc.), on top of ice, carefully pour just enough water around fruit and greens to anchor them and return to freezer. Float fruit-side-up in bowl. A float may also be made in a block of ice in same manner, using a loaf pan (not glass).

TEA PUNCH

- 1 quart boiling water
- $\frac{1}{4}$ cup loose tea or 12 tea bags
- 1 quart cold water
- 2 cans (6 oz.) frozen concentrated lemonade
- 2 cans (6 oz.) frozen concentrated limeade
- 1 bottle (2 cups) cranberry juice cocktail
- 2 bottles (28 oz.) ginger ale

Combine the boiling water and

tea. Cover and brew 4 minutes; stir. Place cold water in punch bowl, strain tea into bowl, then stir in unfrozen concentrates and cranberry juice cocktail and mix well. Add ginger ale and ice just before serving. Makes about 5 quarts or enough for 40 servings, 4 ounces each.

FROSTY CITRUS-PINEAPPLE PUNCH

- Orange juice—fresh, canned or reconstituted frozen concentrate—1 part
- Lemonade—fresh or reconstituted frozen concentrate—1 part
- Pineapple juice—canned or reconstituted frozen concentrate (with or without grapefruit juice)—3 parts
- Ginger ale—3 parts
- Pineapple Sherbet—1 quart will make 12 to 15 medium scoops

Combine fruit juices and chill well. At serving time, place in punch bowl, add well-chilled ginger ale and float scoops of pineapple sherbet (substitute another flavor if desired). Garnish with mint leaves.

PASTEL PUNCH

- 1 can (6 oz.) frozen pineapple juice concentrate, thawed
- 1 can (6 oz.) frozen orange juice concentrate, thawed
- 3 cups water
- 3 cups milk
- Dash salt
- $\frac{1}{4}$ cup sugar
- 1 quart lime sherbet

Combine all ingredients except sherbet in punch bowl and stir until sugar is dissolved. Chill. At serving time, spoon sherbet into punch and stir slightly. Serve very cold. Makes about 20 half-cup servings.

PARTY PUNCH

- 4 packages frozen, sweetened strawberries, thawed
- $\frac{3}{4}$ cup sugar
- Dash salt
- 4 quarts cold milk
- 2 quarts strawberry ice cream
- 2 quarts mint or peppermint ice cream

Mash berries, add sugar and salt and blend well. Chill. At serving time, place in punch bowl, add cold milk and stir until thoroughly mixed. Top with strawberry and mint ice cream; garnish with frozen whole or sliced strawberries and sprigs of mint if desired. Makes 24 servings.

Food For “Small Gatherings”

A new U.S. Department of Agriculture bulletin offers help in preparing food for big family get-togethers, small church and community suppers, club gatherings, etc. It contains recipes for main dishes, vegetables, salads, breads and desserts, with calories given for each recipe. Also menus for luncheon or dinner are given to suggest ways of serving many of the recipes in the bulletin. The following recipes are reprinted from this bulletin.

To get **Cooking For Small Groups**, Home and Garden Bulletin No. 197, send your request with name, address (include zip code) and 15 cents to Superintendent of Documents, Government Printing Office, Washington, D.C. 20402.

You may also want to send for



Photo: Tea Council of the U.S.A., Inc.

Fill a Watermelon Punch Bowl with an Iced Tea Fruit Punch to make a colorful and decorative setting for an outdoor party.

the following bulletin: **Keeping Food Safe To Eat: A Guide For Homemakers**, HG Bulletin No. 162. Single copies are free from the Office of Information, U.S.D.A., Washington, D.C. 20250. Be sure to include zip code with your name and address.

HAM AND EGG SALAD

- 2 quarts or $2\frac{1}{2}$ pounds lean, cooked ham, diced
- 19 large eggs, hard cooked and diced
- $1\frac{1}{4}$ quarts apples, pared and diced
- $1\frac{1}{2}$ cups sweet pickle relish
- 1 tablespoon parsley flakes
- $1\frac{1}{2}$ teaspoons instant minced onion
- 4 teaspoons prepared mustard
- 1 cup salad dressing
- Lettuce or other salad greens

Mix ham, eggs, apples, relish, and parsley flakes together lightly. Mix onion and mustard with salad dressing. Gently stir dressing mixture into other ingredients. Chill before serving, on crisp salad greens. Makes 25 servings, about $\frac{3}{4}$ cup each. About 225 calories per serving.

VEGETABLE MEDLEY

- 30 ounces green peas, frozen
- 20 ounces carrots, sliced frozen
- 20 ounces frozen cut asparagus
- 20 ounces frozen cauliflower
- 2 cups boiling water
- 4 teaspoons salt
- 1 tablespoon sugar
- $\frac{1}{2}$ cup butter
- 2 cups vegetable cooking liquid and water
- 2 tablespoons cornstarch
- $\frac{1}{4}$ cup cold water

Partly thaw vegetables if tightly packed. Cook vegetables in boiling water until tender, about 10 minutes. Drain vegetables; save cooking liquid. Add sugar, salt and fat to vegetable liquid and water. Heat to boiling.

Mix cornstarch with cold water and gradually stir into boiling liquid. Cook, stirring constantly, until thickened. Pour sauce over cooked vegetables.

Note: Fresh vegetables may be used in place of frozen. Use 1 quart pared, sliced carrots, 1 quart cut asparagus and 1 quart fresh cauliflower florets. Cook until tender, about 14 minutes. Makes 25 servings of about $\frac{1}{2}$ cup each. About 80 calories per serving.

JELLIED CITRUS SALAD

- 3 cans (16 oz.) grapefruit sections, drained and chilled
- 3 cans (11 oz.) Mandarin orange sections, drained and chilled
- 12 ounces lime-flavored gelatine
- 1 quart boiling water
- 1 quart fruit liquid and water
- $\frac{1}{2}$ cup maraschino cherries, cut in halves
- Lettuce or other salad greens

Dissolve gelatine in boiling water, stir in fruit liquid and water and chill until mixture begins to thicken. Stir in fruit and pour into 12×20 -inch pan; chill until set. Cut and serve on crisp salad greens with desired dressing. Makes 25 servings, each about 2×4 inches; about 120 calories per serving.

CONCLUSION

by Eleanor C. Wood

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American Agriculturist, August, 1972

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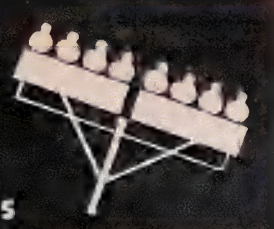


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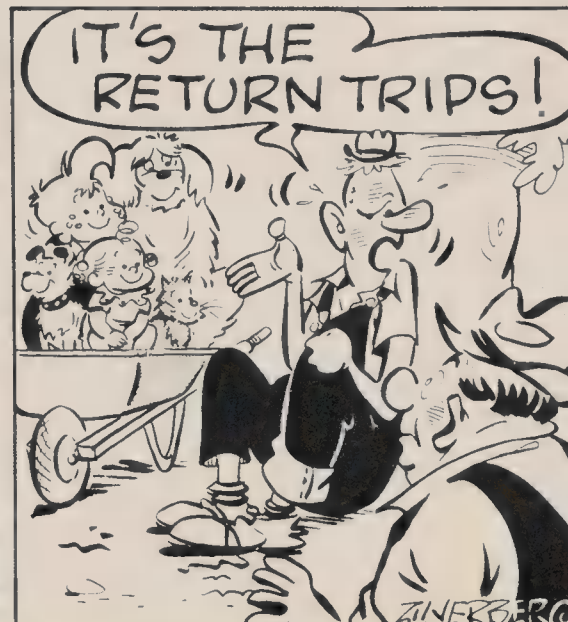
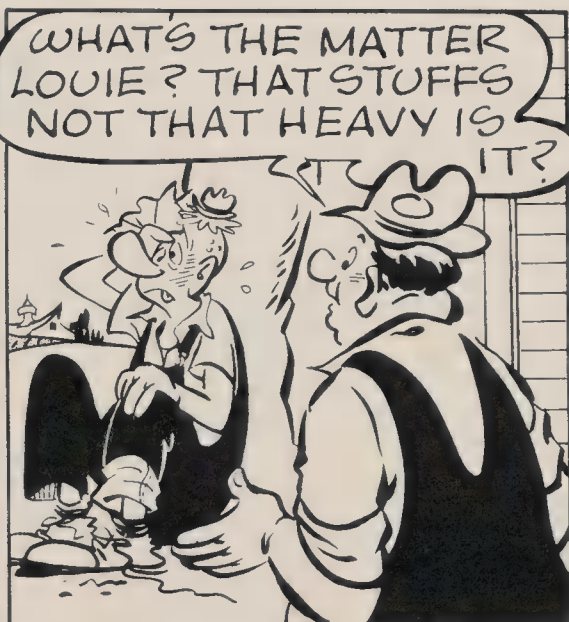
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TRUCK EQUIPMENT DISPLAY at Empire Farm Days. Featured will be a multipurpose body demonstrator. This unit can be used to transport farm implements as well as haul and dump grain, feed and other materials. F. P. Riester, Inc., Truck Equipment Distributor, Sand Beach Rd., Auburn, N.Y. 13021. (315) 253-5732.

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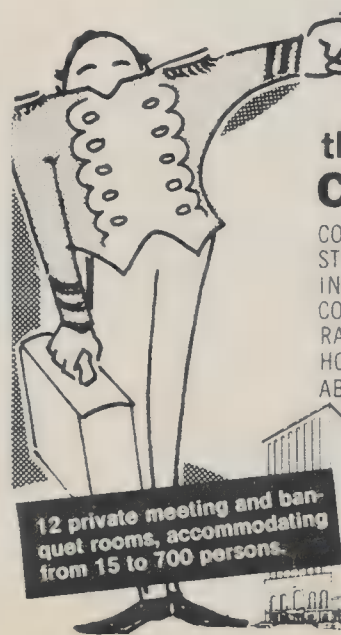


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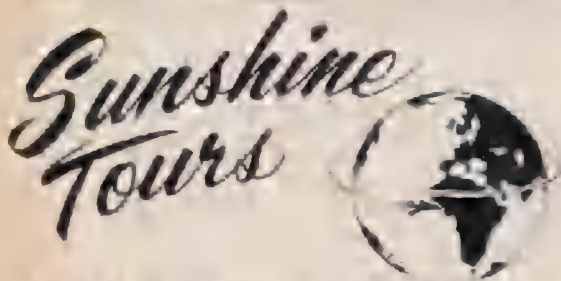
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SOVIET UNION — September 14th departure. A 21-day, all-inclusive tour, Leningrad, Moscow, Sochi, and the Black Sea are real highlights with Kharkov appealing to farm people.

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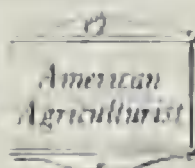
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Holiday

(Continued from page 48)

This year we will be gathering October 27 to 29 at the Buck Hill Inn in Pennsylvania's beautiful Pocono Mountains. You'll enjoy the sight-seeing, beautiful surroundings, fine meals, the program of slides and movies, and good fellowship with some wonderful people. Set this weekend aside and come to the Buck Hill Inn.

Eastern Canada & Gaspé Tour

If you hurry, it's still possible to join our Eastern Canada & Gaspé Tour from August 26 to September 9. This takes us through northern New England to Montreal, Quebec, the Gaspé Peninsula, on to New Brunswick and Nova Scotia, then returning by ship across the Bay of Fundy to Portland, Maine. You'll see a land of quaint fishing villages, picturesque slopes, mountains and seashores, you'll enjoy delectable Gaspé meals, pleasant resorts, and a myriad of other things that will make you glad you've come along!

Other Tours

Also, be sure to send for the day-by-day itineraries for any of the other fall tours which interest you — Spain-Portugal Cruise-Tour, September 24-October 19; Fall Foliage Tour, October 7-15; and our Aloha Week in Hawaii Holiday, October 9-21. All American Agriculturist trips are arranged and supervised by Travel Service Bureau in Needham, Mass. All are fully escorted, all-expense tours. You'll find it's the nicest way in the world to take a vacation.

With Our ADVERTISERS

A new electric chain saw designed to handle many jobs around the farm has been introduced by McCulloch Corporation.

The New Mini-Mac Electric chain saw weighs under eight pounds without cutting attachments and comes with a factory-installed 10-inch bar.

The saw runs on household current. A 2,000-watt or larger generator will run the saw where electricity is not available.

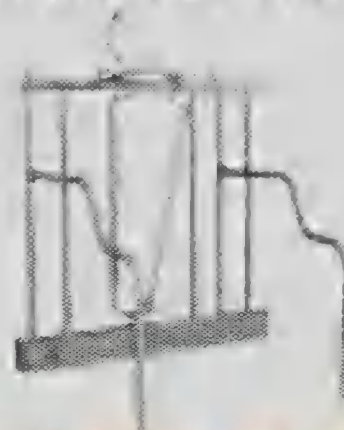
The Zero Concord's stable vacuum is made possible by Zero's patented Twin-Vacuum . . . where by one vacuum milks the cows . . . and a different vacuum moves the milk through a separate pipeline into the Zero Vacuum Bulk Milk Cooler.

The Zero Concord . . . with its new, transparent inflations will be on display in the Zero booth at Empire Farm Days and the New York State Fair.



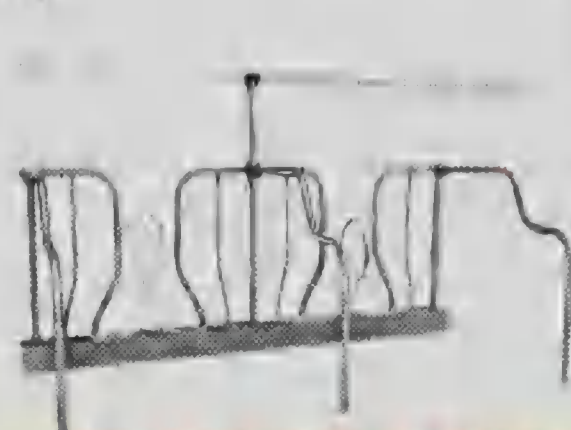
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Copper-bearing steel tubing keeps looking new for years. Makes it possible for these stalls to outlast others by 3-4 times! Your cows stay drier and more comfortable, with less bedding. The unique bell-shaped arches pull in chain slack and help prevent tangling and choking. Yet, with complete safety, cows have more head room when they lie down.



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Empire farm days

by Mary Craig

THE ever-more-popular Empire Farm Days, with its displays, exhibits and demonstrations of just about anything and everything that's new in the line of machinery and supplies essential to the giant farm industry in the Northeast, is set for its annual summer run.

This year, the field days will be held on August 8, 9 and 10. Host is the New York State College of Agriculture and Life Sciences, and location is at Cornell University's new Teaching and Research Center just off State Route 38 a few miles south of Dryden.

This year's show promises some unusual highlights. New buildings that will house Cornell's dairy herd used for teaching and research purposes will be featured among the exhibits. Transportation from the main 20-acre exhibit area will be provided, and guides will explain features of the new facilities and some of the research projects to be carried out there.

Other demonstrations being prepared by the College staff involve plantings of different varieties of forage . . . including crownvetch, trefoil and alfalfa, as well as corn and soybeans. Cabbage and potatoes will be planted at the site so harvesting equipment can be demonstrated. The cabbage harvester incorporates principles worked out at the College's agricultural engineering department.

Exhibits

There will be more than 150 exhibits of what's new in just about every type of farm equipment . . . daily plowing, tilling and harvest demonstrations . . . feed, seed, chemicals and fertilizer exhibits.

Displays will also include farm buildings, silos and storage units, trucks and truck bodies, tires, petroleum, packaging equipment, lighting protection, auxiliary power, finance and insurance, AI organiza-

tions, and pharmaceuticals. There'll be some door prizes given away by exhibitors . . . including an 8-hp New Holland lawn and garden tractor.

An effective demonstration system, in which only one machine at a time is demonstrated and described, will make it easy for you to watch and compare.

No need to worry about food or shelter, either. Many good motels

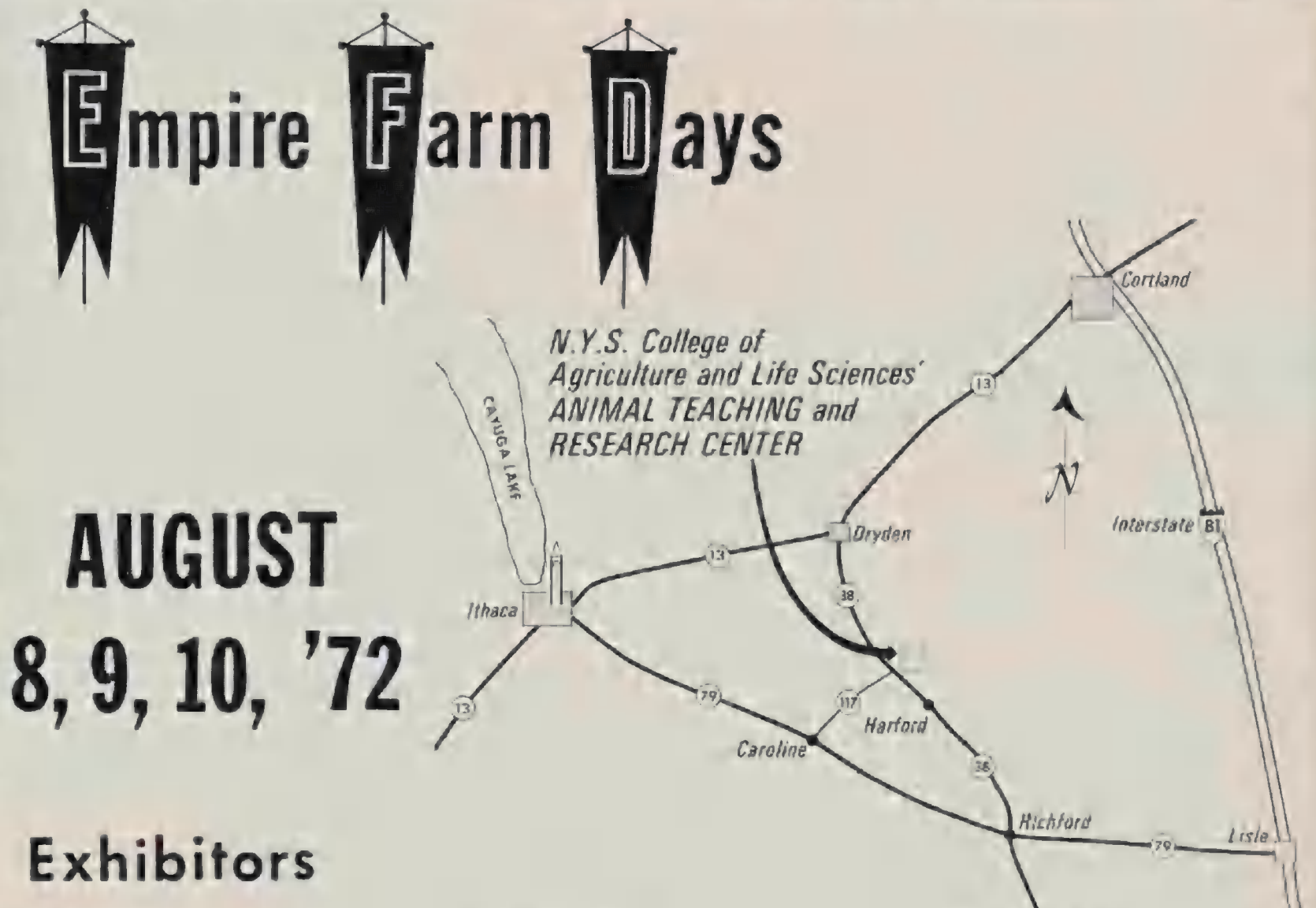
and restaurants are within 15 or 20 minutes of the site, and there will be plenty of food concessions on the grounds. Programs of special interest to women are being planned.

Sponsors

Empire Farm Days is sponsored by the Empire State Potato Club in cooperation with AMERICAN AGRICULTURIST, New York Farm Equipment Dealers Association, New York Farm Equipment Club, New York State Electric and Gas Corporation, Niagara Mohawk Power Corporation, and Rochester Gas and Electric Corporation. The New York State Extension Service, particularly the Cortland and Tompkins County Extension Associations, will also be participating.

Cornell University's new Animal Science Farm, where the Teaching and Research Center is located, occupies 2,600 acres, 1,300 tillable. The site comprises several farms purchased in 1969-70 by New York State as the future location for all of the large-animal teaching and research facilities now located on the Cornell campus at Ithaca. At present, dairy facilities are being constructed. Future plans include facilities for beef, swine and sheep. Empire Farm Days will occupy about 150 acres of level, well-drained land within the proposed complex.

Admission is free, there will be ample free parking, and more than enough to see and do to keep you interested and well-occupied.



**AUGUST
8, 9, 10, '72**

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Nero Company
Empire Silo
Rupp Industries
Dorfer Corp.

Special invitation

Potato and vegetable growers are invited to visit the Cornell University Vegetable Research Farm on their way to or from Empire Farm Days. Cornell personnel will be at the farm from 8:00 to 10:00 a.m. and 3:00 to 5:00 p.m. on August 8, 9 and 10 to discuss the vegetable research activities of the College of Agriculture and Life Sciences.

The farm is located about 1½ miles east of Freeville on what is locally called the McLean Road (an extension of Route 366 which ends at Route 38 in Freeville). The site of the Empire Farm Days is approximately nine miles south of Freeville.



Gayway Farm Notes

by HAROLD HAWLEY

NEW AND BETTER

Not all things are improved by experience but many of our machines do seem to be improved as farmers, dealers and manufacturers gain experience in actual field conditions. Such was the case with a windrower we got this year. The old one was a pretty good outfit but had some drawbacks.

We started out 10 or 12 years ago with a self-propelled windrower which had canvas drapers to move the hay to the middle before it was conditioned and windrowed. The canvasses would move the hay most times, but gave trouble when the hay got in under them. After three or four years we converted to an auger head with good results. This was a 12-foot head and we liked it fine for making haylage, but for hay to be baled it gave a little too much windrow to cure well.

So on the new machine we got a 10-foot head with an auger feed. It seems to get the job done in good shape. Unlike with the old machine, it's not possible to sit up there and see what's going on. So far it gobbles the hay up and runs it through with almost no trouble. If this continues it makes no difference whether one can see what is going on or not. If it gets to bothering, it would be nice to be able to see what is happening and get shut down in a hurry.

We are impressed with the wider crushing rolls, and with the ability to get it so the hay will be put out either in a swath or in a windrow. For baling we prefer to let it lay in a swath and then rake it up later. When we bale directly out of a windrow there are liable to be wet bunches and these usually end up molding in the bale. For chopping we naturally windrow it directly and save the raking operation.

With weights along the frame back to the tail wheel, the new machine is a little less "tail light" than the old one, which had a habit of picking its tail wheel off the ground on occasion . . . mostly going downhill.

TRYING IT THE OTHER WAY

Our chopper is set up to take a recutter screen, which we have always used for haylage. It works all right, but uses up power and slows up the chopping. At any rate, we decided to try going without it this year. The game plan called for keeping the knives well-sharpened and set right up to the ledger plate. Of course this is really no different than when we were using the recutter.

Anyway, the chopping went faster, the bulk of the material was fine enough, but there were longer pieces

mixed in. We weren't quite satisfied, but were impressed with the need to move along faster.

Our concern is not how the haylage looks, but how it may come out of the silo and feed next winter. I'm sure it will be harder to get it out of the silo, but I think it can be done. The cows sure won't object to the longer pieces. Where the bind may come is whether they will feed out evenly along the length of the feeder.

We use a Brillion feeder and the coarse stuff has a tendency not to fall through in a nice stream, but to carry along a ways and then fall in bunches mostly in the farther third of the bunk.

SEEING IT AT ITS BEST

The old saying is that if you are selling a place, there's no time like May or June. If buying, you'd better really like the prospective new home or farm if you buy it in May or June, because it will never look better.

In mid-June, due to a death in Doris' family, I flew to Wyoming and came back across Wyoming and Nebraska by car. Surprise, surprise! We have vacationed in the West for years, always in August because that fit in with our work schedule at home. The desert and range in Wyoming and the Sand Hills of Nebraska have long caught our fancy, but seeing them in June was to fall in love all over again.

In August, the grass is brown and cured on the stem; in June, it is one vast, endless wave of green. In August one frequently wonders what the cattle find to eat. The June viewing made me wonder how the cattle would ever catch up to the feed!

Corn

And then the corn. In eastern Nebraska there's a lot of deep well irrigation and they too have had a lot of rain, plus the warm weather that escaped us all spring. The corn was so dark and beautiful, it made me envious.

Interestingly enough, it was a real rarity to see corn rows narrower than 36 inches. In one group of farmers, some said they had tried 20 or 30-inch rows and had gone back to wider rows . . . and this despite the fact that they were planting their soybeans in 30-inch rows.

You get to wondering about this eastern Nebraska area. Rich, level soil was frequently subject to drought, then along came deep-well irrigation and yields (and land prices) zoomed. They've now reached the point where they pump enough water each year to lower the water table of the area about 2½ feet.

About every ten years they drill another 25 or 30 feet deeper. One has to wonder how long this can continue.

We noted with interest that some farmers were cutting and baling the hay along the highway right-of-way. Equally interesting were the occasional highway department signs which read "mowing prohibited." In a few places around curves or where the soil might blow, the highway people had wisely decided to just let the grass grow.

Swindle

A new racket has surfaced in the Western Corn Belt. Atrazine at an attractive price was offered for early delivery on a cash basis. By the time it was used, the sellers were long gone. The neatly-packaged, properly-labeled bags of "atrazine" contained finely-ground limestone. At \$1.90 per pound, this must be the all-time high for limestone (\$3,800 a ton).

One other observation. We have begun to talk about going to the metric system of weights and measures. I'm for this, but point out that we don't even use what we now have with any consistency. How much milk do you make? That sounds like a straightforward question. Answer: Oh, about X-hundred pounds a day. Well, how much is that in gallons? Gallons was the unit of measure my Nebraska friends understood. What's corn worth out here? Answer: \$1.23. What's it worth in New York? About \$46. I guess we all sell wheat by the bushel, but don't have comparable units on a lot of other items.

There's a rather interesting stretch of land in eastern Wyoming and western Nebraska. It is primarily range land but has some dry land wheat farming. Now we think of these western wheat farmers as having big acreages, and in specialized wheat areas, they do. In this strip that I mention, they have relatively small acreage plowed up . . . possibly 400-500 acres . . . with half of it fallow.

So what's their machinery setup? With no other cropping to do and not too much wheat ground to work, and with quite a long period when they can plow, fit and summer fallow, they have no need for big equipment. It shook me up a little at first, but it made sense. They had a lot of old IH "M" tractors, 3-bottom plows and 12-foot discs. Not much like the equipment some of the large specialized wheat farmers use.

WEEDS AT HOME

AND ABROAD

The cool, wet weather which held back plowing and then fitting and planting gave us an extra shot at a lot of our weeds this year. The quack had started up before we plowed in some fields, and again before we got back to disc the land. In one field, plowed last, the nutgrass had started. We plowed it down and disced and planted right away, which seemed to give it a pretty good setback.

It was a good thing we got some control that way because when the rains came we got pretty well off any schedule. It was just a case of spray whenever we could, and a lot

of grass and weeds got pretty well started again. No spray is as quickly effective on weeds that get too big but with the moisture, spray was more effective than in a dry time, and once we got over the ground, results came along fairly well.

Of course, with atrazine and 2,4-D being used, there are a couple of weeds in a few spots we aren't getting and these will continue to build up until we break down and add another ingredient to the spray mix. Milkweed seems to resist what we've been using. The worst one is velvet weed, which we've had for several years. It never gets quite bad enough to convince us to spend extra money for its control, but it is not about to go away, either.

I was interested in the large variety and number of weeds that the Nebraska people have to contend with. They have even come to the point of spraying twice (plus cultivating in many cases). The split spray schedule not only gives them a chance to hit with more kinds of ingredients, but also improves their effectiveness by hitting the late-germinating weeds a little later than must be done for regular weeds.

THE COW TELLS ALL

Women are frequently accused of being unable to keep a secret. I prefer "no comment" on this one. I will, however, say that the old reliable dairy cow not only tells all she knows about the value and quality of the hay or haylage she eats, but may just know more about these matters than anyone else.

Over the years we've all heard people tell about how well their cows milked on some hay that got wet and was "black as your hat." Early-cut, rain-damaged hay, although it looked bad, may still have been better nutritionally than brighter late-cut hay. In fact, we've frequently felt that hay which laid out too long . . . not rained on, just burned up by an extra day in the sun . . . also lost a lot of its potential.

Anyway, this year with haying late starting, and set back a week or more by the rains, the quality has every right to be below par just because of the timing. Then too, the stuff is coarse and lodged and some is going to be rotted at the bottom—not likely to enhance quality.

All these would be bad enough, but to make matters worse, really much worse, the weevils continued to work throughout the rainy spell. Fields which would have been cut or sprayed just got nibbled away and the protein content hurt some more.

So a mere human would guess that a lot of first-cutting hay will not be first quality by our standards. The cows may grade it even lower when they come to use it next winter. It's the kind of year where you hope the second-cutting situation will be much better.

We find ourselves a bit bound up in our efforts to adjust to this as much as we'd like. Normally, we make our haylage from the first part of our first cutting, bale the rest for heifers, and bale the second for sale. It's just not feasible to discontinue filling the silo with the first cutting, even though it isn't the quality we would like.

American Agriculturist, August, 1972



BUREAU

SERVICE BUREAU CLAIMS
RECENTLY SETTLED

NEW YORK

Mr. E. H. Terry, Sinclairville	\$ 2.32
(refund on book)	
Mrs. Ralph E. Martin, Adams Center	9.50
(refund on watch)	
Mrs. Hazel Brady, Herkimer	22.40
(insurance payment)	
Mr. Robert R. Foster, Potsdam	3.00
(refund on purse)	
Adles Bros., Marietta	14.92
(refund of credit)	
Mrs. Clifford Elms, Fort Ann	18.00
(payment for hay)	
Mrs. Arlene Dawson, Bliss	9.83
(refund on order)	

PENNSYLVANIA

Mr. Willard Townsend, Harleysville	4.55
(refund on order)	
Mr. John L. Schaffstall, Gratz	3.98
(refund on book)	
Mrs. S. L. Shank, Worthington	3.95
(refund on book)	
Mr. Donald Lauger, Spring Creek	50.00
(credit on account)	
Mr. Lee Kisner, New Albany	72.77
(refund on tape player)	

MAINE

Mrs. Harold C. Smith, Mechanic Falls	3.64
(refund on order)	

IT HAPPENED AGAIN!

Here are a few of the responses to our June column, "Too Late Schmart:"

"I had my roof sprayed on May 22nd. It cost me \$400 and now it still leaks. The man said he was working for a company in Canton, but I have called two companies and they do not know the man. He said he was an Indian, that his wife was in the hospital, and that they had a four year old boy.

"What can I do about this?"

Unfortunately, without an address or license number, there is no way of tracing this man.

• • •

"I read your item in the June issue about gypsies operating in New York State. I wish it had been in the April issue, as they did a good job on me and my purse.

"A woman and young boy were with the man, who was driving a neat pick-up truck. They didn't drive far enough into my driveway for me to see the license plate. He said they were Indians, and that he had five children, so he had to work hard. He was sorry for me because I live alone, etc.

"He had a little black driveway resurfacing material left over and I told him he could do my drive. They put it on with a hose and it only took them about five minutes, because it was as thin as water and my drive is only about two cars long.

"Then, he came up to the house and wanted cash. I told him I had no cash, and he told me to go get some. I said it was too late . . . the banks and store were closed, so I made out a check as he told me. The next day was Saturday and, according to my cancelled check, he must have waited until Monday to go to the bank. I had made out the check to Lewis Miller, and it was endorsed Louis Miller, 687 N. Edgewood Avenue, Jacksonville, Florida.

"If you want to print my letter, it might help some other reader."

American Agriculturist, August, 1972

Nowhere in her letter did our subscriber mention how much she had paid for this job, but she had enclosed her cancelled check. When we saw the amount, we were really shocked . . . \$680.00!

It often seems as though we repeat ourselves a lot in this column but, when we receive letters like these, it proves the necessity of such warnings periodically, because we are reaching new readers all of the time.

• • •

"For years I have read in American Agriculturist about itinerant workmen and their shoddy work. Just yesterday, a man in a blue and white pick-up (new) offered to tar our roof because he had material left from another job.

"I wasn't very cordial, and he left in a hurry. Out-of-state license, though I couldn't see it distinctly. He might have been Spanish or Mexican . . . some accent; had a little boy with him.

"We are in a suburban area on Long Island. I had associated this type of activity with the rural areas."

These fellows really get around!

ALASKA SLEEPING BAG

Last fall, we printed an item concerning Alaska Sleeping Bag Company of Beaverton, Oregon. At that time, we had had several complaints against them, but most of them had been settled. The company had been in business for over forty years and had a good reputation. They blamed their problems on change-over to computer handling of orders and failure of some of their suppliers to make deliveries. We understand an earnest effort was made to correct the situation.

Since then, we have had a number of complaints, most of which, so far as we know, have not been settled. We have been unable to get an answer from the company since March.

One of our readers was put in contact with the Department of Commerce, Consumer Services Division, Salem, Oregon, and he was advised by them that Alaska Sleeping Bag Company is declaring bankruptcy. It is very unlikely that individuals who did not receive merchandise or a refund from them will be able to get a settlement. However, should anyone wish to check further, in the event the company might have sufficient assets to make partial refunds, he may write the firm's attorney:

Mr. James Moore, Esq.
Souther, Spaulding, Kinsey,
Williamson & Schwabe
1200 Standard Plaza
Portland, Oregon 97204.

Inquiries and letters to the Service Bureau should be addressed to Service Bureau, American Agriculturist and the Rural New Yorker, Box 370, Ithaca, New York, 14850

Agent Charles Nalbene of Jamestown, N.Y., in his seventh year with North American, brings personal service to folks in Wyoming County, N.Y.

FELL AND
FRACTURED ARM

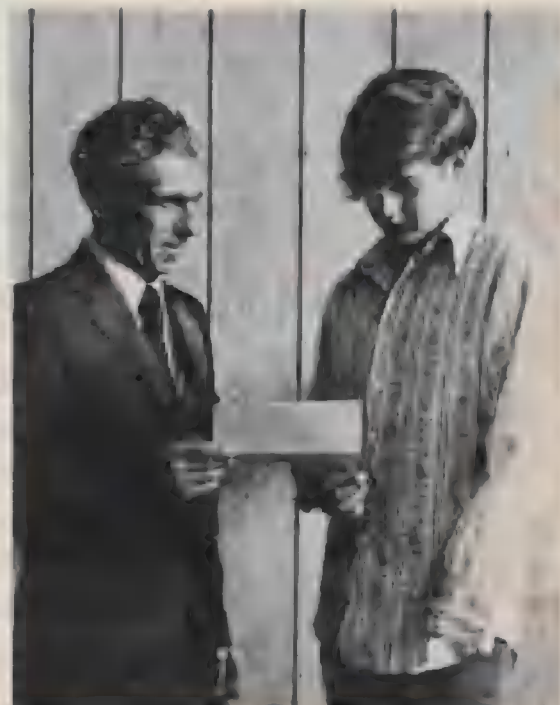
When walking from the barn to the house, Mrs. Teresa Neamon of Arcade, N.Y. slipped on a patch of ice. She landed on her right arm breaking the wrist bone.

Mrs. Neamon has carried North American protection since 1956. In 1959 and again in 1970 she added more policies to upgrade her protection. Her combination of policies paid \$492.85 disability benefit and \$174.15 medical expense benefits for a total of \$667.00.

ARM CRUSHED IN
AUTO ACCIDENT

William Parmerter, Wyoming, N.Y. was a passenger in a car which skidded out of control on slushy snow and crashed into a tree. William suffered a dislocated shoulder and a crushing fracture of the left arm. Thirty-one days in the hospital, they tried to save his hand but due to ground in foreign particles and the severe fracture, gangrene set in requiring amputation of the hand.

It was just 24 days before the accident that the Parmerters decided to take out North American protection with Mr. Nalbene. He returned to deliver \$2500.00 from a combination of policies paying \$1500 loss of hand and \$1000 medical expense benefits.



OTHER CLAIMS PAID

A friend's name may be in this list.

Florence Dougherty, Andover, N.Y.	\$1211.58	Mary Foley, Camden, N.Y.	\$ 103.70
Fell coming up steps—broke ankle		Bicycle accident—inj. shoulder	
Harold Wagner, Delevan, N.Y.	1967.28	Lloyd C. Grandon, Warners, N.Y.	299.18
Thrown from wagon—injured hand		Piece of steel fell—broke foot	
Harry J. Learn, Hinsdale, N.Y.	694.28	Carl H. Steingasser, Sr., Honeoye Falls, N.Y.	
Slipped on step—broke ankle		Truck accident—broke ankle	295.00
Joseph Staehr, Sr., Auburn, N.Y.	260.00	Leita J. Wooding, Fulton, N.Y.	102.88
Kicked by cow—broke tooth		Bitten by cat—inj. hand	
Thomas E. Ashberry, Locke, N.Y.	574.85	Ralph S. Gregory, Mt. Vision, N.Y.	1000.00
Auto accident—injured neck		Filling silo—broke ribs	
Doris D. Breads, Mayville, N.Y.	270.70	Ruth E. Moyer, Richfield Sprgs., N.Y.	121.42
Thrown by horse—broke finger		Fell off bike—inj. leg	
Dorothy M. Aikens, Clymer, N.Y.	1041.00	Thomas O'Brien, Hermon, N.Y.	474.00
Fell on stone step—injured leg, arm		Hit by baler kicker—head injuries	
Theron J. Strouse, Pine City, N.Y.	284.17	Andrew R. Morrison, DeKalb Jct., N.Y.	432.23
Knocked down by cow—inj. hip, leg		Caught between baler braces—broke leg	
Elton H. Ireland, Bainbridge, N.Y.	172.99	Carl A. Palmer, Sharon Springs, N.Y.	137.14
Caught in fan—broke finger		Power saw caught—inj. wrist	
Francis Peryea, Sr., Altona, N.Y.	392.13	William Wade, Waterloo, N.Y.	596.90
Fell from hay mow—inj. arm		Nail puncture—inj. hand	
Alfred M. Eisenhardt, Harford, N.Y.	437.95	Durwood Hibbard, Prattsburg, N.Y.	488.15
Steering wheel spun—broke fingers		Thrown from truck—inj. shoulder	
Robert Givens, Marathon, N.Y.	696.20	Donald Tuttle, Hornell, N.Y.	1710.34
Truck accident—inj. back		Auto accident—broke wrists, leg	
Edward Nichols, Jr., Bloomville, N.Y.	973.55	Anthony Babinski, Sr., Water Mill, N.Y.	201.75
Thrown from tractor—inj. back		Sawing wood—cut finger	
Constance S. Tadd, Bovina Center, N.Y.	397.35	Leon John Emerson, Richford, N.Y.	1539.98
Auto accident—inj. legs		Kicked by bull	
Robert DeGraff, Williamsville, N.Y.	1490.70	Lila MacLean, Ithaca, N.Y.	182.36
Auto accident—broke pelvis, arm		Caught under car door—inj. leg	
Mary V. Weber, North Collins, N.Y.	470.48	Douglas Packard, Macedon, N.Y.	143.00
Thrown from truck—inj. ankle, foot		Hit by baseball bat—cut eyebrow	
Charles E. Putman, Johnstown, N.Y.	104.10	Rose F. Sindinski, Marion, N.Y.	2060.00
Fell from rail fence—broke toe		Auto accident—multiple injuries	
Rebecca J. Gibson, Oakfield, N.Y.	1450.00	Lawrence Englert, Wyoming, N.Y.	180.00
Auto accident—inj. foot		Fell from rafter—inj. feet	
James Casler, Frankfort, N.Y.	570.00	Virginia Lain, Millerton, Pa.	764.81
Stepped on by cow—inj. foot		Auto accident—inj. head, chest, legs	
Duane Steiner, Carthage, N.Y.	180.00	Everett H. Clark, Sugar Grove, Pa.	214.00
Hit by wrench—broke tooth		Caught between cow-post—inj. shoulder	
David Cavanaugh, Boonville, N.Y.	1128.39	Walter J. Engle, Calumet, N.J.	517.52
Kicked by cow—inj. knee		Auto accident—broke fingers	
Dorothy R. Herzig, Castorland, N.Y.	244.20	Floyd Hendershot, Columbia, N.J.	285.71
Slipped on pine needles—inj. ankle		Fell from stepladder—inj. shoulder	
Bertrude M. Stone, Munsville, N.Y.	107.14	Wallace A. Brook, Northfield, Mass.	1000.00
Lighting gas grill—burned hand		Auto accident—broke arm	
Terry E. Rothfuss, Fairport, N.Y.	1044.80	Norman Treadway, Shoreham, Vt.	408.68
Jack slipped—inj. knee		Fighting fire—injured legs	
Julia Nichols, Fort Plain, N.Y.	121.28	Duane B. Lawrence, So. Stratford, Vt.	460.00
Fell on wet grass—broke arm		Auto accident—broke arm	

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(In New York State)

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TWIN-VACUUM PIPELINE
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What's More, You'll Have the Only System that Provides Stable Milking Vacuum at the Teat End—in Parlor or Stanchion Barn—with a Low or High, Short or Long, Pipeline—and Without Injecting Air into the Milker Units to Move the Milk

Made Possible by ZERO'S Patented Milking Principle ... TWIN-VACUUM

Here's why the ZERO CONCORD's stable milking vacuum is so important! More and more animal health authorities have been agreeing that many teat and udder injuries—which have contributed to the spread of mastitis—have been caused by milking with unstable vacuum. Only with stable vacuum at the teat end can you hope to reduce leucocyte counts up to 65%—increase milk production as much as 20%—and prevent off-flavor milk.

If Your Milk Checks Have Become Smaller Due to High Leucocyte Counts—Lower Milk Production—and Off-Flavor Milk ... Investigate the New Model "Seventies" ZERO CONCORD Twin-Vacuum Pipeline Milking System! It's a combination of a revolutionary pipeline milking machine and the ZERO Completely-Automated Vacuum Bulk Milk Cooler. Designed especially to milk with stable vacuum at the teat end to prevent teat and udder injuries caused by milking with unstable vacuum.

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A New, Compact, Simpler, High-Capacity Milker Unit Adds to the Advantages of TWIN-VACUUM! It's made of a new, light, strong, transparent material for visual milking—and a sturdy, stainless steel base. Has a built-in Vacuum Teat Release Valve that automatically releases vacuum

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You Also Have Built-in, "Push-Button", Visible, Self-Cleaning and Sanitizing of the Entire System—Without Disassembling. This not only includes the milk conveying vacuum pipeline and other milk contact surfaces—but also the milking vacuum pipeline, pulsators and even the outside of the inflations and inside of the shells.

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691-CH Duncan Ave., Washington, Mo. 63090 U.S.A.

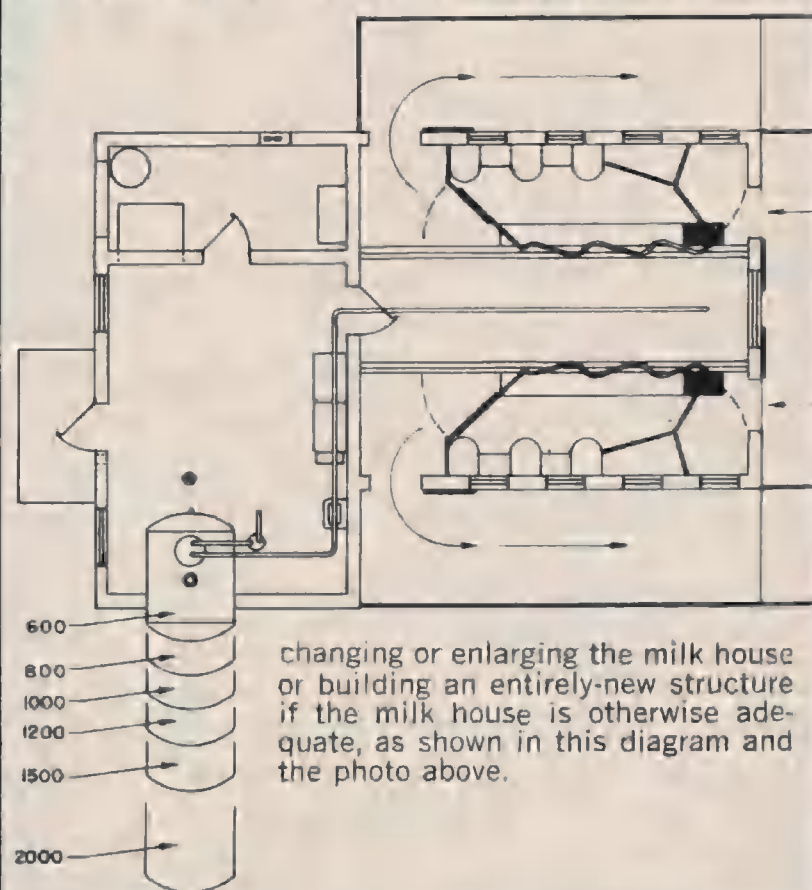
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... that's designed to enable you to go from a 50-cow herd through 200 cows—utilizing a 600-gallon capacity bulk tank through a 2,000-gallon capacity tank—without



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Please send me FREE: Brochure described at left, Floor Plans described above, full information about the complete, new Model "Seventies" ZERO CONCORD Twin-Vacuum Pipeline Milking System with Cow Monitor, and name of my nearest ZERO Dealer. I am interested in this system for a:

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Name
Make of present milking machine Age
Make of present bulk tank Age
Size of milk house Size herd
Address Phone
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SEPTEMBER 1972

American Agriculturist

and the
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Model	2470	1470	1370	1270	1175	1070	970	870	770	570	470
PTO Horsepower*	165*	145	142	127	122*	108	93	77	63	41	34
Displacement	504 turbo	504 turbo	504 turbo	451 turbo	451 turbo	451	401	336	267	188	188
Rated RPM	2200	2000	2100	2100	2100	2100	2000	2000	2000	1900	1750

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and the
RURAL NEW YORKER

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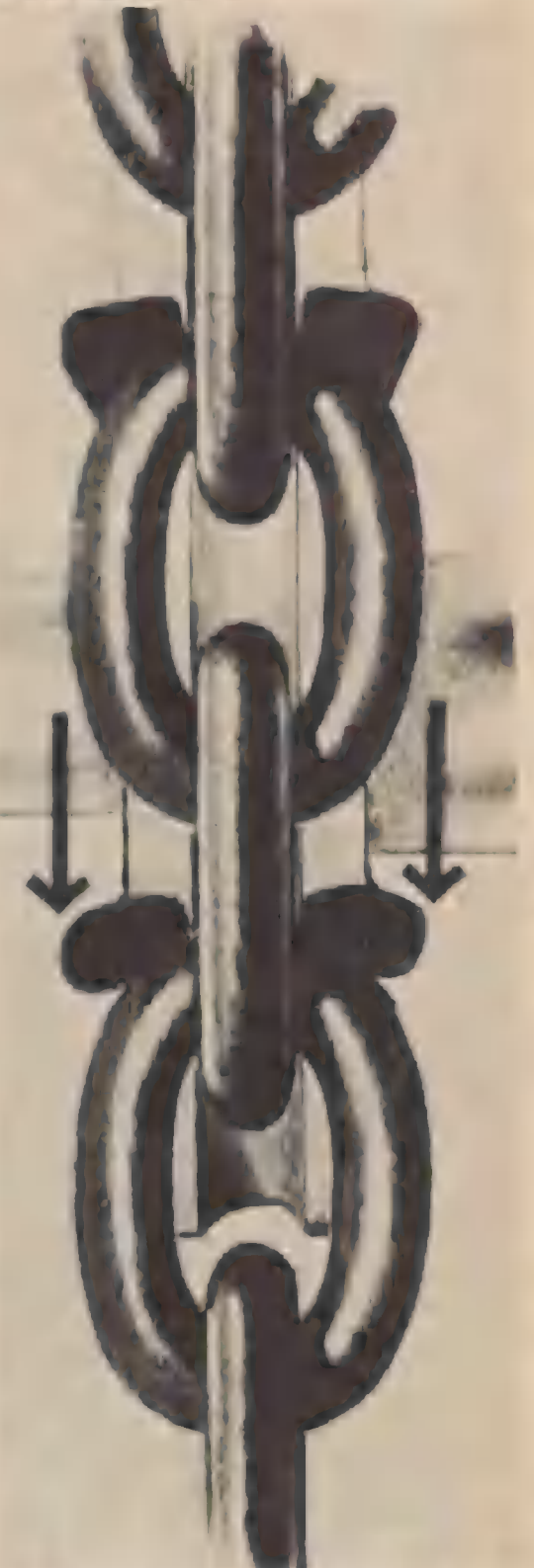
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OUR COVER

Spring may be the traditional time to fix up and paint up the farmstead, but weather in the fall is usually better. Photographer Doris Barker took the photo on the O. J. Short farm near Belmont, New York.

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The vineyard of Emmett Williams, just east of Naples on Route 245, was typical of inundated farm land. Unless speedy action had been taken by local people, this flooding would have persisted until vines were killed.

Are ye not worth more than sparrows?

THE people of the village of Naples, New York, were already tired of the rainy June by the beginning of the third week of that month... but they were yet to feel the lash of the 14 inches of rainfall that were to pour on their area in four days. By Thursday evening, June 22, three creeks in the area... the Eelpot, the Tannery, and the Grimes... were roaring threateningly as they rushed toward their junction to form Naples Creek.

During that fearful night, and on the morning of June 23, these creeks went on a frenzied rampage. In the hills above the village... the headwaters area... the maddened creeks undercut banks, toppling trees into the foaming water. The hillsides, soaked by a seemingly endless succession of June rains, began to slip mud slides... also carrying trees... into the creeks. As though playing with toothpicks, the raging water formed logjams that turned the slashing floodforce to cutting new channels.

Seventy truckloads of logs and other debris were dumped near the combined village and town highway barns... the bank of Naples Creek was chewed back as much as 50 feet toward the foundations of homes once a safe distance from a placid and picturesque stream... the approaches to bridges were chewed away.

Grape Area

The Naples area is famous for its grape vineyards; an annual Grape Festival held there has become widely known. The thundering flood spread out on level land north of the village... where hundreds of acres of high-value vineyards (an investment of more than \$1,000 per acre) were turned into a muddy lake.

Although suffering heavy damage, this Ontario County community, and its environs, were by no means the most heavily damaged in New York State... the Elmira and Corning areas had that dubious honor. But one facet of events around Naples has special relevance for the future.

Merton Lincoln, a poultryman whose farm is on Hickory Bottom Road west of Naples, is a member of the town board... and took major responsibility in the cleanup process following the flood. Here are some of his comments:

"The State of New York purchased fishing rights along considerable distances of the creeks in the Naples area, and promised at the time to maintain the stream banks and bed. After the flood, the banks were non-existent in many places... and the channels were choked with debris, especially logs. Furthermore, the stream bottoms had risen generally because of gravel deposited during the flood.

Urgent Problem

"When local people asked the State Department of Environmental Conservation for help in stream-bed work, we were informed that funds were not available. We knew something had to be done soon... especially since areas of inundated grapes were doomed if channel modifications were not done quickly to get the water off the vineyards.

"So we went ahead in sheer desperation and arranged for a private contractor to start work... sticking our necks out a mile in the hope of eventual federal or state aid. By late July, the village had committed itself to nearly \$100,000 for cleanup and the township to \$169,000.

"But the Conservation Department people seemed to put trout ahead of people, and sometimes harassed us as we worked. Technically, the stream beds of trout streams are not supposed to be disturbed... and Department people are so steeped in enforcing the regulations that some of them seemed unable to shift their mental gears in the midst of urgent human need. We no sooner had a dozer in Grimes Creek working on logjams than the Conservation enforcement people threatened us with impoundment of the tractor if we persisted.

"We have since obtained permits

(Continued on page 13)

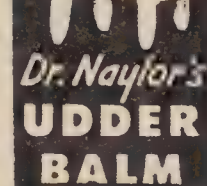
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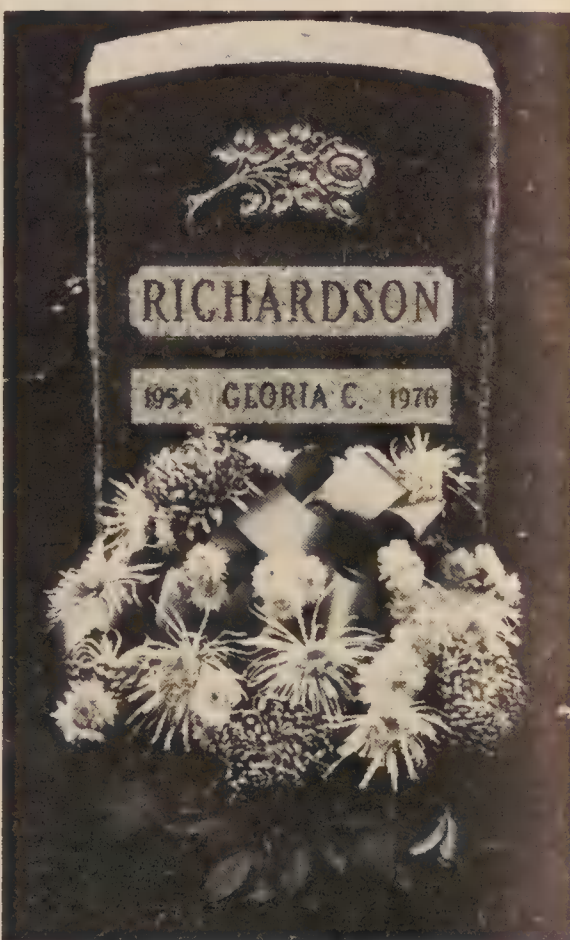


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The cancer of drug addiction has spread throughout the country and we're not going to wipe it out overnight.

But let's do something. Let's get started. Troubled teenagers are among the people in this town who are crying out for our help.

Poor people, sick people, old people, disturbed people are counting on us.

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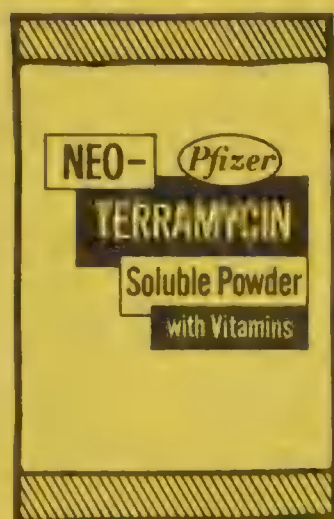
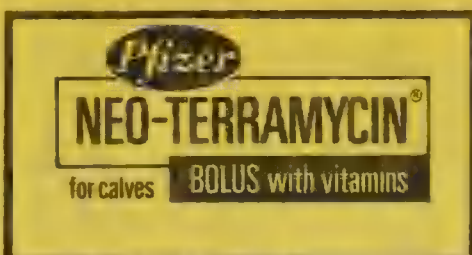
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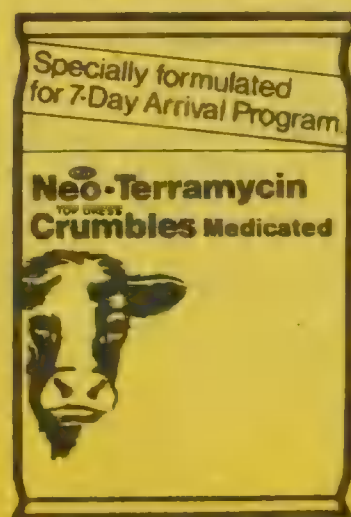
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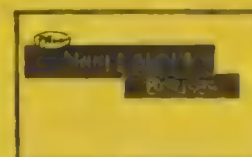
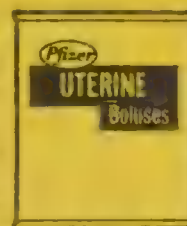
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MORE FOR GROWTH AND HEALTH

EDITORIALS

by GORDON CONKLIN



BEEF ABOUT FOOD PRICES

The yelling about rising food prices has subsided a bit, but it will be back. To prepare for the next time around, I ran a little unofficial survey at a local supermarket.

As I came into the store, I observed a gal unloading her cart at the checkout counter. She unloaded a giant economy-size box of detergent, two cartons of cigarettes, three six-packs of beer, a sack of cat food, a two-pack of paper towels, a loaf of bread and half-gallon of milk.

"My God," she exclaimed as she dug out a \$20 bill, "food prices are something awful!"

I knew better than to comment... I've been punched in the nose before... and so I wandered on down to the meat department. Another lady shopper was eyeing the sirloin steaks; her husband is an electrician who charges me \$12.50 an hour, including coffee breaks and travel time.

"How come meat's so darned high?" she challenged.

Well, I was tempted to remind her that one reason is that it costs the storekeeper an ever-lovin' fortune every time her husband spends a day working on the meat-department's refrigeration equipment... but instead I tried to use finesse.

"I think beef prices should be rolled back to what they were 20 years ago," I volunteered.

"I'm with you," said Mrs. Electrician. "By the way, what were beef prices 20 years ago?"

"About the same as now," I replied. "The retail prices are some higher, but farm prices are just about the same."

"What were electrician's wages 20 years ago?" I went on innocently.

She'd been trapped, and she knew it... because average hourly wages in these United States have more than doubled over the last two decades. This, of course, includes the wages of the people who slaughter the cattle, process it into cuts, haul it to supermarkets, etc., etc.

I figured I'd scored some points on behalf of farmers, and looked around for another shopper to educate.

"What do you think about meat prices?" I asked a young woman accompanied by three children.

"I think they're terrible," she replied, "especially beef. I'd switch to chicken or fish... but my family insists on beef. Wish the government would slap price controls on it!"

I wanted to tell her about supply and demand... and what economists refer to as prices functioning to allocate resources... and raise a question about fixing prices on a food item enjoying surging consumer demand that inevitably puts an upward push on prices. Or maybe suggest eating more eggs... a marvelous source of high-quality protein, and at a very reasonable cost per pound. But I knew her husband is a rising young labor-union executive with high earning power, and the family will eat what it wants to eat... on less than 20 percent of its disposable income.

Down the street a way, I stopped at a "natural food" store and observed adherents of the new life style happily buying fertile eggs at a dollar a dozen, and scabby apples at the equivalent of \$15 per bushel. If demand is strong enough, the price is apparently not a deterrent. Maybe the proprietors of those stores know something about selling that the rest of agribusiness doesn't know.

My strictly amateur research at the grocery store reinforces two long-held convictions:

— It's important to use every opportunity available to expose non-farmers to the economic

facts about agriculture in general, and food costs in particular.

— However, farmers cannot expect consumers to shed any tears over the fact that farmers as a group are still underpaid compared to workers in other occupations. More hard-nosed bargaining power is even more important than ever to agriculture.

THE SILVER LINING

The floods that ravaged Pennsylvania and New York have receded, but the agony of those terrible days will scar the lives of many people for years to come! What, I wonder, can we see in such a dismal event that may provide guideposts for a more constructive future?

First, I'd point out that the forces of creation are the most powerful of all in shaping our environment. We arrogant, yet puny, human beings loudly proclaim that we are about to "destroy the environment"... all too often naively forgetting the ability of Mother Nature to do some destroying on a massive scale. Maybe it will help develop perspective for we mortals... locked as our thinking is in a time-span of about 70 years... to reflect that our old earth has seen mind-boggling changes in its environment long before homo sapiens ever trod its surface.

Secondly, let's ask ourselves whether people remain at the center of our attempts to improve the ecology. Sometimes a worthy objective, that begins as a people-centered crusade, can gradually become an abstract ideal... and the needs of "folks" can be overlooked. The purest water in the world is still bad if it's ten feet deep in your living room!

A third thought concerns help for those hurt most by such natural disasters. Surely an affluent nation like ours should be able to more adequately help people whose homes and businesses have been smashed by flood, hurricane or other catastrophe. Let's pull in our nation's horns around the globe so we taxpayers have enough public funds to come to the aid of our own neighbors more generously.

Finally, I am impressed by the things that are being done by public agencies to help flood victims... and by the support of private citizens. Hundreds of people from outside the devastated flood area went in to mingle their sweat with that of people trying to clean up their homes. You'll read about the bombings, and the hijackings, and the violence of the world... but I assure you that 90 percent of yesterday's unreported events were constructive... including the inspiring story of the dogged determination to help themselves shown by the flood victims, and the helping hand offered them by neighbors near and far.

PARSLEY PROMOTION

It's my privilege to wander around the country now and then, and to join farmers and agribusinessmen at various events where packing away the vittles is an important part of the festivities.

At such events, I note that parsley is almost always added as a garnish... especially to potatoes. As I join 99 percent of the rest of the folks in pushing it aside on the plate, I find myself musing about salesmanship.

Parsley is a food commodity that almost nobody eats... yet it remains high on the list

of necessities for milady (or the restaurant manager) when preparing fancy meals. Compared to such things as marriage and church-going... both under attack as "irrelevant"... using parsley seems an unimportant tradition. But it's a tradition that seems to survive very well indeed, and I am all for supporting the sales pitch of the parsley growers.

The mystery, though, is that I don't think the parsley growers have a sales pitch. Come on, fellas, and share with other farmers your secrets of successful promotion without a program, funds, or organization!

NO SMELL

The New York State Department of Environmental Conservation has been holding hearings on amending air pollution rules.

One proposed amendment reads like this:

"No person shall permit or cause any air contamination source to emit any air contaminant which can be smelled by any person located at the boundary line of the property on which the air contamination source is located."

What better argument could I offer on behalf of farmers supporting farm organizations such as the Farm Bureau... whose representatives "watchdog" proposed legislation and rule changes? Sweeping proposals like the one mentioned need the input of the agricultural community if we are to live under practical regulations.

Wonder if the smell of a buckwheat field in blossom might be objectionable to someone? We need to reduce air pollution, but I wonder if a "zero tolerance" is reasonable... or attainable.

What's your opinion?

McHALE AT BAT

By gum, Pennsylvania's Secretary of Agriculture Jim McHale has finally received some kind words... from the Rodale Press people, publishers of *Organic Gardening and Farming*.

Up to that point, he's gotten mostly a lot of static... commercial dairymen dismayed by his well-publicized efforts to lower the retail price of milk... Penn State University leaders smarting under the lash of his accusations of irrelevancy... and a whole flock of others concerned about the hobnailed boots Jim is accused of using to move things his way.

Journalists have been picking on him, too, wondering aloud at how come each issue of the official publication of the Pennsylvania Department of Agriculture (PDA)... published at taxpayer expense... could be so blatantly political in tone. Some have even made snide remarks about Jim's ego... the June 1, 1972 two-page issue of PDA's Weekly News Bulletin features four pictures of the photogenic McHale.

But at least the Rodale people agree with Jim's contention that small farms are... or should be... the wave of the future.

Hang in there, Jim... you can't lose 'em all!

THE PASSING PARADE

The farm wife had had a bad day... chasing a neighbor's cows out of the garden, burning a roast, and finally topping it all off by having son Jimmie come home with pants torn from playing tackle football.

She told him in no uncertain terms to go to his room while she repaired the tattered pants. As she grimly sewed, she heard a noise in the workshop down cellar.

Totally exasperated, she stormed to the top of the cellar stairs and yelled, "Young man, are you running around down there without any pants on?"

A deep and somewhat puzzled voice replied, "No, ma'am... I'm just reading the meter!"



Left to right: Gary and Greg Van Slyke, Agway's Harold Barkewitz and Kenneth Van Slyke discuss latest Agway Dairy Feeding Profile.

“Harold doesn’t work for Agway—he works for us.”

Gary Van Slyke, Pike, N.Y.

Gary and Greg Van Slyke manage a 900-acre dairy farm near Pike, N.Y. in partnership with their father, Kenneth. They have a lot of confidence in Harold Barkewitz, an Agway Farm Enterprise Salesman.

“In six years,” said Gary, “Harold helped us grow from a 54-cow herd into a profitable 250-cow operation. Our herd average climbed from 13,400 lbs. with 54 cows to 14,000 lbs. with 250. Following his advice has paid off.”

“For example,” added Greg, “we set up a group feeding program where cows are fed according to their productivity. As a result, feeding efficiency was greatly improved. Harold also advised us to store high-moisture corn, to cut down on the amount of grain we had to buy. Not the kind of recommendation you expect from a man who sells you feed.”

“Thanks to Harold, we were one of the first farms to go on the Agway Dairy Feeding Profile,” said Kenneth Van Slyke. “It tells us exactly how each cow is doing and shows how our operation stacks up against others of the same size.”

“He has been so helpful that we don’t think of him as a salesman at all,” Gary concluded. “Harold doesn’t work for Agway—he works for us.”

You can get a man like Harold Barkewitz working for you to increase your production and profits. All it takes is a call to your nearby Agway store or representative.

Farm Enterprise Service

AGWAY

Greg Van Slyke, herd manager, checks Agway Breeding Control Center daily on each cow’s breeding and health status.

The Van Slykes raise all their corn for silage and have been averaging 16 tons per acre.

Gary Van Slyke is responsible for the farm’s crops—400 acres of corn and 230 acres of hay.



September

Plan for bigger corn yields in '73

Get ready for the long barn-housing season that's just ahead



Shoot for record yields with these new Agway hybrids

This is the time to take a good, long look at how well your 1972 crop management decisions worked out. With everything fresh in your mind, you can start making decisions and move toward next year. A good way to start is to pick the Agway hybrid that best meets your needs.

A new "special cross" hybrid: Agway 393S. From Maine to central Pennsylvania, plot trials and on-farm plantings have proved the superior standability, excellent disease-resistance and grain yields of Agway's new 393S. Large ears well-covered by deep green husks are carried low on the stalk. Husked ears are uniform with deep kernels. Highly recommended for silage or grain. Matu-

urity range: 90 to 100 days (silage/grain).

A first for the East: Pa. 4404. In five years of Penn State trials, Pa. 4404 out-yielded Pa. 444 by 29 bushels per acre at almost identical maturity. And showed better standability. Maturity range: 92 to 102 days (silage/grain).

Proved under stress: Agway 767. Selected during the heavy blight years as a superior hybrid under stress conditions. Two years of Agway trials plus extensive farm plantings attest to its superior grain-yielding ability and excellent standability. Maturity range: 116 to 126 days (silage/grain).

A dual-purpose hybrid: Agway 790S. A consistent performer for both silage and grain. 790S has

an exceptionally sturdy stalk with extra-large, dark-green leaves. Yielded over 192 bushels per acre in Agway's 1970 and 1971 trials. Maturity range: 116 to 126 days (silage/grain).

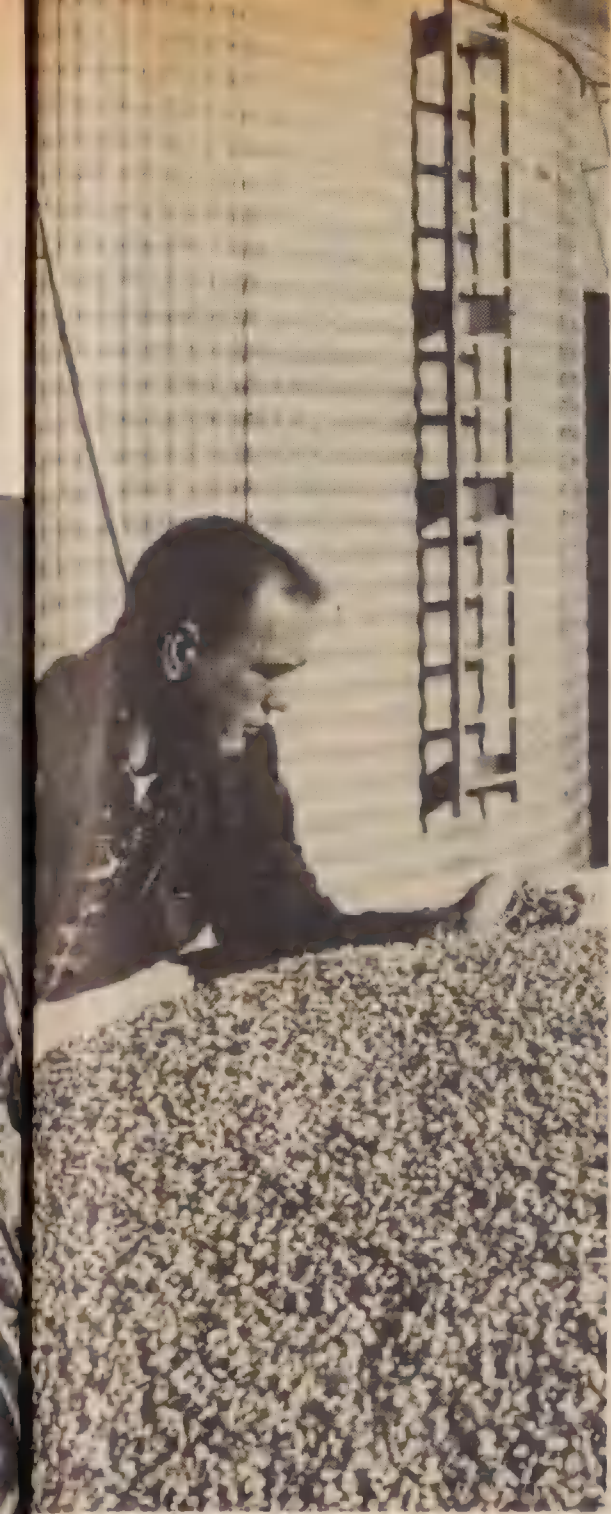
A truly superior, long-season hybrid: Agway 909X. From the beginning of trials four years ago, it has been the most outstanding long-season hybrid Agway has ever seen. Strong stalks keep growing after other hybrids have quit for the year. Maturity range: 125 to 135 days (silage/grain).

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For complete details, check with your Agway store or your Agway Farm Enterprise Salesman.



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This fall, switch to an Agway Sta-Rite Full-View Milking System and watch your machine-caused mastitis problems fade away. For complete details, visit your local Agway or talk it over with your Agway Farm Systems Salesman.

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Calves get all the colostrum needed in three to five days. After that, you can sell all the milk. With the right milk replacer, your calves will thrive. Choose from these Agway replacers:

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At 5 days, start calves on Agway Calf Grower. The earlier a calf gets on solid feed, the faster it develops. Nutritionally balanced and highly palatable.

Agway Farm Enterprise Service can help you increase your profits. Call Agway any time.





Income tax out

by Amos Kirby
New Jersey Editor

New Jersey's proposed income tax reform is a dead issue. It's doubtful if it can be revitalized in any form in the foreseeable future. This means that the potential reduction in real estate taxes of about 40 percent can be forgotten for the present.

In a recent issue, I pointed out the strong possibility that even with tax reform, most farmers would actually be paying about the same total tax. The Farm Bureau, after a careful study of the proposed tax bills, found ample evidence that enactment would result in substantial real estate tax reductions.

Why did the Assembly vote against the tax plan? There are a number of reasons, including opposition by powerful non-farm groups. In the meantime, if farmers have taken advantage of the Farmland Assessment Law, the failure of the income tax will not be a disastrous burden.

I have devoted much thought and research to tax matters. In recent years, in addition to the sales tax, the costs of local, school, county and state services have mounted. Here is an opinion that may have some bearing on the income tax defeat. Within the last few years, the state budget was about \$350 million. It is now about \$2 billion and many taxpayers, including myself, see little visual evidence showing where all of those tax dollars have gone.

A second thought is centered around the revaluation of all real estate, with some startling increases. If local expenditures remained constant, a lower rate could become a reality. But experience has shown that these rates soon start upward.

ASPARAGUS

New Jersey's big asparagus industry is in deep trouble. Two years, 1971 and 1972, have seen yields drop to the lowest levels on record. Indications are that the 1972 yield may be as low as 1,000 pounds per acre. In recent years, even 2,000 to 2,400 pounds per acre has been considered a non-profit crop. The last good asparagus year was in 1968, when yields averaged close to 2,500 pounds per acre.

There is no one factor that one can point to and say "this is the cause." Not even the College of Agriculture has the solution. One can give the College much credit for developing better and more productive plants. Surface examination of the industry brings into focus changes in production and also disease problems.

For two consecutive years, the weather has been cold and the soils unusually wet. Another factor involves plant population. It will not be surprising if plant count in scores of fields this late summer and early fall shows that the plant population is partly responsible for reducing yields to a low level.

Then comes the disease angle. No one seems to know how much the

fusarium disease has reduced yields. One wonders too if chemical weed control has killed many plants. Growers have also changed their cultivation practices; has the use of tractors compacted the soil to the point that some plants may have suffocated?

As I see it, the asparagus industry is where the tomato industry was years ago, when tomato yields were only 5 to 6 tons per acre. Look at tomatoes today!

There are many growers who still believe in the asparagus crop, and that a solution will be found. Asparagus has been grown in South Jersey for more than 300 years, and it should not disappear overnight.

HAY QUALITY

Hurricane Agnes and other heavy rains since the start of the 1972 alfalfa season have reduced feeding value of this crop in many areas. Dairy specialists in the mid-Atlantic area are advising dairymen to have hay crops tested to determine nutrient value.

A 10-percent reduction in nutritive value of hay calls for an increase in grain mixture to maintain milk production.

SOIL TEST FEES

Effective July 1, 1972, the cost of College-sponsored soil tests in New Jersey advanced to \$2 per test from the long-established price of \$1 per sample.

The cost increase is due to the fact that no allowance has been made for depreciation of the testing equipment, which sooner or later must be replaced. Higher cost of labor is also a factor.

Testing for pH is still free, as well as tests for salt concentration in water.

The more complete tests for nitrogen, mechanical analysis, boron and others may range up to \$5, depending on the time and the kind of equipment involved.

HOMEGROWN EARWORMS

If growers have had more corn earworms this season, the pests may be homegrown. Heretofore the earworm has usually traveled northward on winds from the south. Its early appearance is believed to be due to a hardy strain able to survive in this climate. It may also be that the mild winter in 1971-72 enabled the pest to survive under these abnormal conditions.

FALL FERTILIZER

In view of the excessive rainfall in most vegetable growing areas in New Jersey this year, additional fertilizer may be needed on fall crops. One extension specialist suggests that most vegetable crops, if still 30 days or more before harvest, could stand a sidedressing of nitrogen fertilizer to replace what may have leached away.

The two recommended sources of nitrogen are ammonium nitrate at

the rate of 100 pounds per acre, and anhydrous ammonia at the rate of 40-50 pounds per acre.

NEMATOCIDE

The systemic insecticide Furadan is being used to control nematodes in the South Jersey corn crop.

The insecticide has been applied as a granular material in narrow bands adjacent to the seed, and is of known value in protecting corn from many soil-borne insects. Through its systemic nature, it is reported effective against sucking insects... as well as flea beetles, corn borers, earworms and other pests.

If Furadan proves effective in reducing losses from nematodes, it may develop into an important method to control pests and increase crop yields. Systemics have proven satisfactory in controlling birch and holly miners, and this year's test on corn may open up a wider use on field and vegetable crops.

NEW DEAN

Dr. Charles Hess has been unanimously elected as the new dean at the College of Agriculture and Environmental Science. Dr. Hess received high marks while acting dean, and his approach to major farm problems assures growers that they will receive the same sound and constructive leadership provided by the late Dr. Jacob Lipman, the late William Martin, and retired Dr. Leland Merrill.

WATER FOR LAYING FLOCKS

New Jersey poultry specialists recommend top quality water in laying houses and cages.

Poor quality water can depress production, cause watery droppings, influence the number of thin-shelled and cracked eggs, even impair health... and in some instances may cause morbidity and death.

FLOODING PROBLEMS

Eastern growers who have experienced crop losses due to water accumulation might take a pointer from western growers. One of their important pieces of equipment, especially on irrigated land, is the leveler which fills in low spots and prevents water pockets.

Due to excessive moisture in the 1972 growing season, there are hundreds of fields in the coastal area of New Jersey and even in Delaware, where crops have been drowned because of water accumulation.

Crop losses due to improper drainage have been the heaviest in many years. Losses have been noticeable in tomato, potato, bean plantings and others.

DISASTER LOANS

Peach growers who lost much of their 1972 crop are eligible for disaster loans. This applies to the lower 11 counties where the bulk of the crop is grown.

These emergency loans may be secured through the Farmers Home Administration. Terms are most liberal. Up to \$2,500 of each loan can be forgiven, but the grower must pay the first \$500 borrowed. If he borrows \$5,000, he must repay at least \$2,500. Loans are available to any size peach operation, reports Secretary of Agriculture Phillip Alampi.

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FORD TRACTOR





American Agriculturist

The farmer's friend

by Paul G. Hasse

I HAVE always been intrigued by stories of the art of falconry, and often dreamed of someday owning my own graceful falcon. The closest I ever came to that dream was when I found a wounded red-tailed hawk, a respected member of the falcon family. This huge bird was lying in an open field . . . with its mate standing guard.

The talons and wicked beak of the bird made it necessary for me to "hood" it by throwing a sheet over it.

My first thought was to check with our veterinarian about setting the badly-broken wing. It was impossible to do this, since the veterinarian claimed the bird would remove anything placed on the wing, doing more damage than already was done.

Upon his advice, I placed a ladder for the bird to use as a perch in an unused shelter. Then I proceeded to keep the bird fed until the wing could heal itself.

My second thought was to call the game warden to learn about the legality of keeping the bird confined. About that time I gave up my dream of having a falcon, because I could see that this red-tailed hawk had an enormous appetite for rodents! I was kept busy hunting mice and sparrows for the wounded creature. I decided to free the hawk as soon as the wing was healed.

I wore a leather jacket and leather gloves for protection as the red-tailed hawk soon became friendly enough to perch on my arm while he waited for his food. He liked his food warm, and one day when I found a surplus, I stored the wounded rodents in a corner of the shelter. When I returned the hawk had devoured the wounded ones, leaving the dead mice there.

Hawks get the blame for stealing chickens and doing some mischief. After keeping the red-tail until its wing was well, however, I agree with researchers who claim the hawk to be the greatest enemy of field mice and gophers.

I was glad when I could free the bird, completely healed, and could watch it sail and circle, almost without effort, with its patient mate. Each time the hawks swoop down I know that they have found another rodent that makes a gourmet meal for them and helps save millions of pounds of grain and forage each year.

The next time you see anyone take aim at a hawk, think of the good this quick-eyed, tireless hunter of rodents does for you. He more than pays for an occasional feast of young chicken or game. After doing the hunting for my feathered friend I have developed a new respect for these graceful giants of the sky. They are beautiful balancers of nature, and truly the farmer's friend.

This is the red-tailed hawk that Mr. Hasse "hospitalized."



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Selling more milk

"All Butter Fudge" and five other new refrigerated candies developed by Pillsbury under a shared-cost project with Dairy Research Inc. (DRINC), are now being sold in test markets in Fort Wayne, Indiana and Fresno, California.

"These six items are the first of a number that we expect to introduce as a result of our shared-cost product development contracts with nationally-known food brands," reports Dr. Richard E. Farrar, executive vice president of DRINC. "They mark the first time that the DRINC name or the name of any other producer-supported organization has appeared on packages of a brand distributed in all states of our country."

Refrigerated

Sold as Pillsbury "Creamery Candies," the line of six confections takes advantage of refrigerated distribution to use fresh dairy ingredients. "Country butter," "dairy sweet milk," "sweet cream" and similar descriptive terms are used extensively in packaging and promotion to stress fresh, homemade quality.

In addition to All Butter Fudge,

other varieties offered in test markets are Golden Cream Fudge, Chocolate Cream Caramels, Mint Chocolate Meltaways, Orange Chocolate Creams, and Chocolate Pecan Sticks. All six are being sold in packages of a half-pound or less at prices approximately half that charged for comparable quality candy store items.

Fresh dairy ingredients are named in the listing on each package. The DRINC logotype appears on the back panel of each package with the message "Developed with Dairy Research Incorporated."

DRINC, with headquarters in Arlington Heights, Illinois, is a non-profit research and market development organization established in 1969. Its purpose is to stimulate the development of new or increased uses for milk and milk products. DRINC funds come exclusively from dairy farmers investing in the United States Dairy Industry Association.

"Every major food firm is today getting more than half of its income from new products that were not on the market ten years ago," according to Alden Grimes, DRINC's vice president of market development. "It is obvious that not just the growth, but the very survival, of the dairy industry demands new dairy ingredients."

"The major dairy firms of a few

years ago are spending most of their research effort on non-dairy substitutes. The research facilities of the larger cooperatives are doing a tremendous job of trying to replace that commercial effort, but must concentrate primarily on short-term product developments to move products this year and next.

"The job of looking five and ten years ahead and assuming the risks of developing products for that future market must and is being borne by dairy farmers through their support of DRINC. The fact that we are able to get nationally-known food firms to invest three or four times the DRINC investment in such projects should give producers renewed faith in the future of dairying."

Sparrows

(Continued from page 4)

from the Department to work in the streams, but we were also threatened with their revocation because we weren't always doing the job according to their specifications. Deepening a trout-stream channel seems to be the personification of evil itself to a true-blue fish and game man . . . regardless of how necessary it may be in terms of saving a family's house, or a farmer's hard-earned livelihood.

"Our gripe is that we think people are at least as important as trout. If officialdom has so many other important things to do that they can't help with immediate funds to corral these streams after a disastrous flood, we think they could at least help us when we try to help ourselves!"

The people in the Naples area are aware that no feasible man-devised structure or watershed projects could have saved them from disaster on that wild night in June . . . there was just too much water too fast. They are also aware that fairness requires the recognition of the positive aspects of public-agency participation in time of emergency . . . the National Guard, highway crews, Extension Service, law enforcement people, and all the rest.

But they are disturbed that a bureaucracy always seems to have to get the paperwork all done before the machines can start working . . . a fact that can enormously compound the problems of people already crushed by events, and desperately in need of quick action to forestall further loss. And they wonder if the dramatic upsurge in the concern for environmental quality may have shifted our society's priorities too far away from a people-orientation . . . sacrificing the needs and aspirations of just plain "folks" upon the altar of ecological enthusiasm.

American Agriculturist, September, 1972



A 100% chance to milk their best? Start them on a Purina Nurse-Gro "Milk Production" ration now.

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LICA is a national organization which got its start in the Midwest and has spread rapidly. New York's is one of several chapters in the Northeast. Dedicated to the continuing growth of agriculture, the national and state chapters are working to protect our soil and water resources through use of efficient business principles and private free enterprise in the field of land-improvement contracting and related industries.

The national LICA emblem is shown above. Similar state chapter emblems are displayed on the cars, trucks and machinery of member contractors. New York's chapter, which encourages high standards

of workmanship among its members and is anxious to be recognized for quality work at a fair price, hopes farmers will come to recognize the emblem and look for it when they need water management and land improvement services.

New York LICA is open to those qualifying as regular, associate, affiliate or honorary members. Legal aid services, group insurance, workshops, magazines and newsletters, annual meetings and various social activities are but a few of the membership advantages. For full information, write to: R.D. Black, Executive Secretary New York LICA, 118 Riley-Robb Hall, Cornell University, Ithaca, New York 14850.



THE SCIENTIFIC

FEEDING OF CHICKENS

by Harry W. Titus and James C. Fritz

To the poultryman without a thorough understanding of poultry nutrition, the feeding of chickens is more of an art than a science. He follows certain rules that tend to give good results, but when something goes wrong and the chickens don't grow or lay as well as they should, he lacks the scientific knowledge to change the situation.

THE SCIENTIFIC FEEDING OF CHICKENS gives him that knowledge. Here, brought together in one convenient volume, is all the pertinent, up to date information on poultry nutrition the practical poultryman needs to feed his chickens scientifically and insure the best possible return on his investment and labor.

Internationally recognized for more than thirty years as the standard authority on its subject, and now in its fifth edition, THE SCIENTIFIC FEEDING OF CHICKENS will also be invaluable to nutritionists, college teachers of poultry production, and to their students. Every department of vocational agriculture should have at least one copy for reference.

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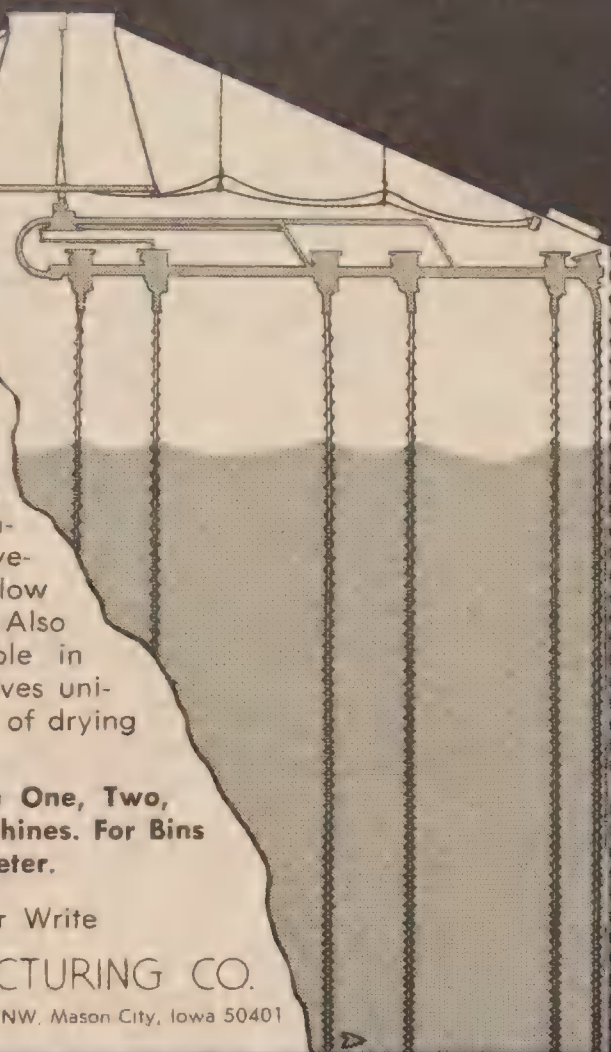
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Center alleyway allows feed vehicle easy access to feed bunks in the Clarkes' giant barn.

Whopping big barn

by Jeanie Begg Markmann

A two-day open house at Sidney and Donald Clarke's new dairy barn near Claremont, New Hampshire, was held in June to give the public an opportunity to view what the New Hampshire Farm Bureau and the University of New Hampshire report is the largest barn in that state.

The Clarkes' barn, designed by a Pennsylvania agricultural engineer, is 340 feet long and 86 feet wide. The ridge of the ceiling is 32 feet

from the floor. The barn has an 119x40-foot "ell," and is similar to the Agway barn near Fabius, New York.

Presently, 208 milking cows and 115 bred heifers . . . 61 of which are expected to calve within two months . . . are housed in the barn. A holding area, milking parlor, milk storage tanks, a utility room, box stalls for calving, and an 11-stall hospital ward are in the ell. Milking is begun at 5 a.m. and 4 p.m.

Stay in Barn

Cows (mostly Holsteins, with a few Brown Swiss) never leave the barn. Young stock are being raised in the old barns in the valley and are pastured in summer months.

Fresh sawdust is blown into the stalls mechanically each day by a truck that drives down the lane between them. Alleys behind stalls also are cleaned by machine and manure is emptied into an outdoor pit, measuring 150x100x10 feet deep. Manure is spread daily, except for two or three months at certain times of the year.

The Clarkes have 260 acres of corn and 70 acres of alfalfa in 1972.

A bull is kept in the pasture with heifers; the Clarkes like to have heifers freshen at 24 to 27 months of age. But, after their first calf, artificial breeding is done. Donald Clarke, who took a course in the subject, does all the artificial breeding of the herd.

Production

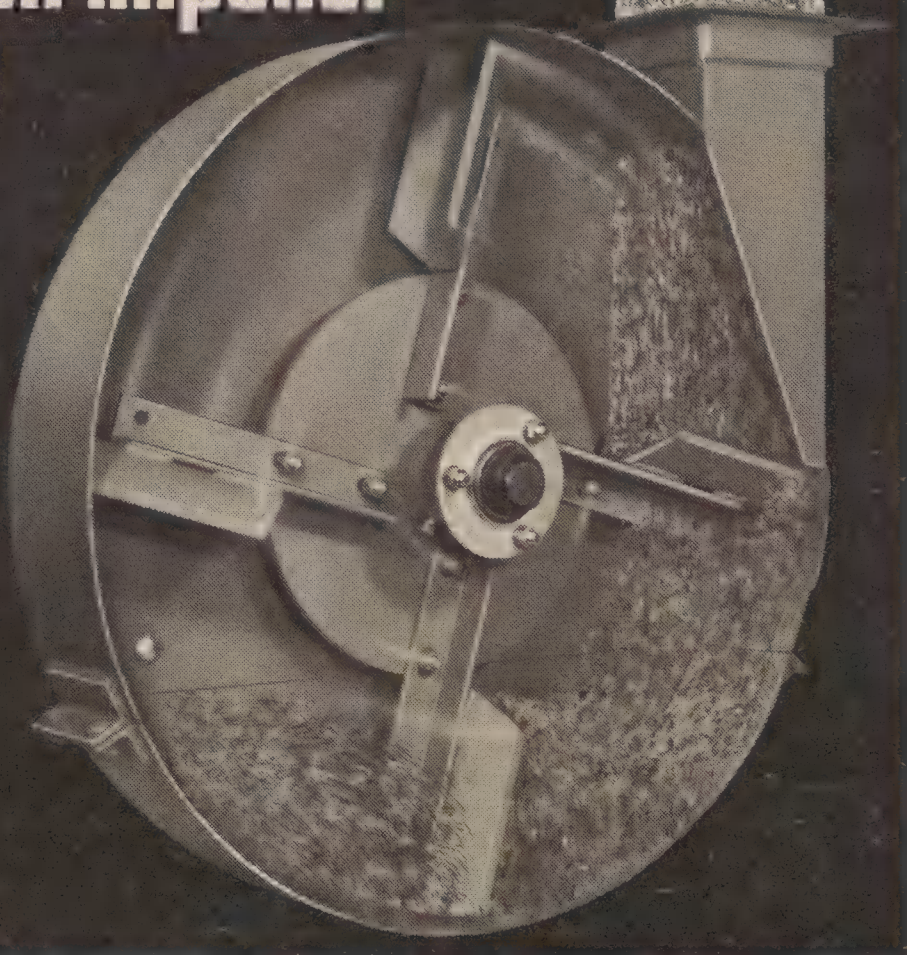
In 1971, average production of the Clarke herd was 14,472 pounds of milk with 540 pounds of butterfat. One cow gave 26,682 pounds of milk and 773 pounds of butterfat. Still another cow outdid her in butterfat, producing 919 pounds!

Released from their section to go to the milking parlor, a group is held by a "crowd gate" in the holding area and released 16 at a time into the milking parlor. The "crowd gate" operates automatically and is set to move toward the milking parlor at four-minute intervals. While being milked, cows enjoy licking a block of molasses which is provided at each of the 16 milking stations.

In the milking parlor, a milk cooling "plate" takes about a minute to cool the milk flowing through it toward the holding tank from 90 degrees to 40 degrees.

New Jamesway® Volumatic® II silage distributor-unloader with exclusive 26-inch impeller really throws it out!

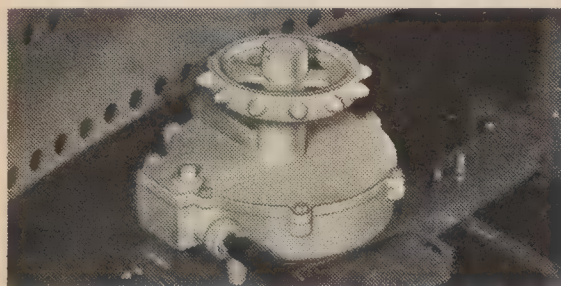
And it gives you the kind of big-herd feed-out you've been needing. Here are all the advantages of straight-thru auger-to-impeller flow, advanced 4-blade design, higher inertia to resist wads and jams. It's so efficient it delivers higher volume in 12- to 30-foot silos without extra conveyors, throwers or kickers!



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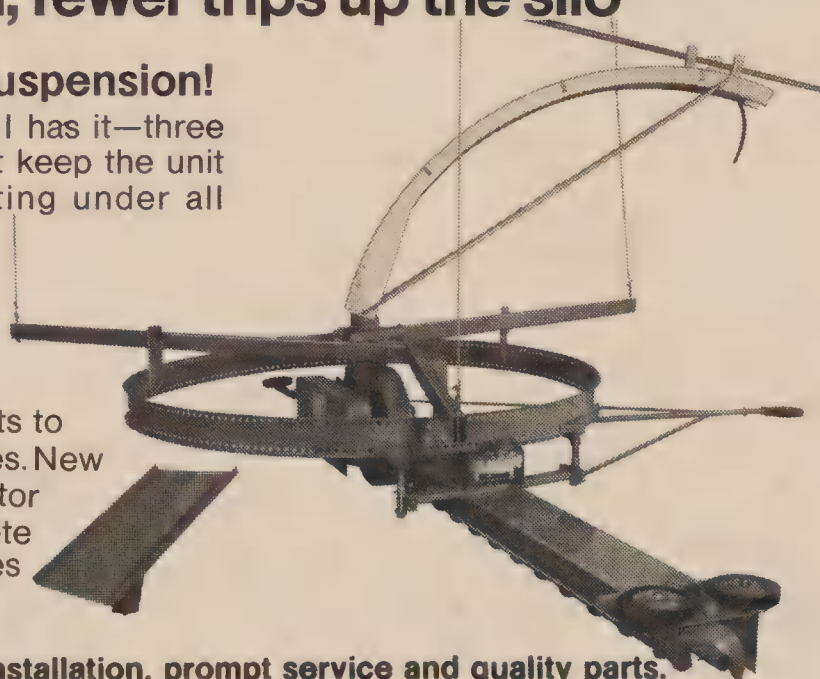


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American Agriculturist, September, 1972

Dates to Remember

Aug. 29-Sept. 4 - New York State Fair, Syracuse, N.Y.

Sept. 7 - Cornell Corn Field Day, Aurora, N.Y.

Sept. 7-8 - Conference for amateur wine-makers, NYS Agricultural Experiment Station, Geneva, N.Y.

Sept. 8-9 - Annual Hammond 4-H and FFA Fair, Fairgrounds, Hammond, N.Y.

Sept. 8-10 - 49th Annual Yorktown Grange Fair, Yorktown Heights, N.Y.

Sept. 11-12 - Vegetable Variety Field Days, Cornell University, Ithaca, N.Y.

Sept. 11-17 - Farmfest, featuring World Ploughing Contest, Vernon Center, Minn.

Sept. 15-17 - 10th Annual Meeting NYS Poultry Industry Coordinated Effort (SPICE), Edgewood Resort Hotel, Alexandria Bay, N.Y.

Sept. 15-24 - Eastern States Exposition, West Springfield, Mass.

Sept. 19-22 - 41st NEPPCO Convention and Exposition, Concord Hotel, Kiamesha Lake, N.Y.

Sept. 23 - Pennsylvania State Holstein Show, Farm Show Building, Harrisburg, Pa.

Sept. 24-26 - Annual Meeting New York Soil Conservation Districts Association, Lodge-on-the-Green, Painted Post, N.Y.

Sept. 25-29 - All-American Dairy Show, Farm Show Building, Harrisburg, Pa.

Sept. 30 - New England Angus Association Fall Sale, University of Connecticut, Storrs, Conn.

Oct. 4 - 11th Broiler Housing Seminar, University of Delaware Substation, Georgetown, Del.

Oct. 6-8 - Fall Foliage Festival, Warner, N.H.

Oct. 9 - NYS Guernsey Sale, Sale Pavilion, Canandaigua, N.Y.

Oct. 14 - Mohawk Valley Feeder Calf Sale, Westernville, N.Y.

Oct. 14-20 - Pennsylvania National Horse Show, Farm Show Building, Harrisburg, Pa.

Oct. 17-19 - New England Greenhouse Conference, Colonial-Hilton Inn, Rt. 128, Wakefield, Mass.

Oct. 19 - Feeder Calf Sale, Dryden, N.Y.

Oct. 28 - Feeder Calf Sale, Bath, N.Y.

Oct. 31 - Feeder Calf Sale, Chatham, N.Y.

Oct. 26-Nov. 4 - National Apple Week.

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American Agriculturist, September, 1972



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New York's Big Trees Located

New York's search for big trees is turning up prospective national champions throughout the state. The tree census, sponsored by the State Forest Practice Board and the department's Bureau of State and Private Forestry, is the first in New York in 30 years.

The program already has had good public response. If you have a tree on your property or know of one that is exceptionally large in height or girth, contact your nearest regional office. A department forester will assist you in measuring it.

The following table lists the largest trees reported to date. The circumference measurement is taken at a point 4½ feet above the ground level. The crown spread is the average total width of the crown.

Species	Circum. Ft./In.	Height Ft.	Crown Spread Ft.	County	Owner
Amur Cork	13/10	88	88	Chenango	Edwin Corley, Rte. 80, Sherburne
Black Ash	5½	64	36	St. Lawrence	William Dyrkacz, South Colton
White Ash	14/0	77	65	Chenango	Carlton Wrench, Bainbridge
Baldcypress	11/6	76	53	Cayuga	Ruth Bodine, Moravia
Basswood	13/11	65	48	Franklin	Stewart Decker, Brushton
Beech, American	13/11	85	82	Albany	W. Cox, Watervliet
Beech, European	23/0	107	106	Westchester	R. Weinberg, Tarrytown
Beech, Copper	14/10	83	78	Greene	St. Joseph's Villa, Catskill
Gray Birch	2/8½	50	15	Lewis	Beryl Walseman, Carthage
White Birch	9/6	65	54	Albany	Lanthier's Grove, Latham
Yellow Birch	11/9	101	52	Herkimer	C.A. Niles, Utica
European White Birch	6/6	72	48	Rockland	Mrs. Novograd, Monsey
Boxelder	8/3	73	71	Albany	H. Kappler, Altamont
Butternut	11/4	68	70	Dutchess	Mr. Stettler
Eastern Red Cedar	8/9	67	40	Dutchess	N.Y.S. Park Comm. (Former Hoyt Est.)
Black Cherry	10/11	84	68	Chenango	Frank Belluci, Sherburne
American Chestnut	3/6½	76	40	Cayuga	Harry Murphy, Victory
Eastern Cottonwood	24/9¼	108	96	Cayuga	Harold Hal, Moravia
Cucumber tree	11/3	76	58	Dutchess	Toby Berg, Millbrook
Flowering Dogwood	2/8	26	27½	Rockland	Mrs. Novograd, Monsey
American Elm	21/7	110	130	Greene	City of New York (Gilboa Watershed)
Ginkgo	13/8	73	-	Dutchess	Vanderbilt Est., Hyde Park
Hackberry	16/7	98	95	Columbia	Dr. Fred Richardson, Claverack
Eastern Hemlock	17/3½	72	52	Otsego	J. Carlton, Gilbertsville
Shagbark Hickory	9/11	105	68	Chenango	Millard Dean, Afton
Honeylocust	13/11	80	69	Dutchess	Vanderbilt Est., Hyde Park
Hophornbeam	7/0	47	30	Otsego	Stuart Ainslie, Otsego
Kentucky Coffeetree	9/2	94	50	Dutchess	Vanderbilt Est., Hyde Park
Eastern Larch	4/2	71½	60	Warren	R. Cipperly, Round Lake
Black Locust	20/3	74	44	Albany	W. Waise, Slingerlands
Red Maple	21/7	94	77	Dutchess	Bard College, Annandale
Silver Maple	18/0	115	86	Chenango	Robert Boulton, Norwich
Sugar Maple	18/1	59	63½	Madison	Sam Jones, Morrisville
Norway Maple	9/3	74	65	Greene	M.C. Greason, Catskill
American Mountainash	7/11	42	26	Albany	Robert Fallon, Voorheesville
Bur Oak	15/10	68	100	Schoharie	Village of Middleburg
Northern Red Oak	21/7	94	60	Rensselaer	Hendrick Hudson F&G Club, Averill Park
Swamp White Oak	10/2	67	67	Dutchess	Vanderbilt Est., Hyde Park
White Oak	20/4	84	87	Columbia	Chris Bortugno, Stuyvesant Falls
Pear	7/10	43	29	Broome	Eugene Gregory, Conklin Forks
Pitch Pine	6/9½	85	-	Schenectady	City of Schenectady
White Pine	16/11	112	24	Essex	Northwoods Club, Minerva
Austrian Pine	7/0	56	49	Chenango	James Webb, Sherburne
Carolina Poplar	23/7	100	94	Jefferson	Dewey Goodman, West Carthage
Sassafras	9/0	54	38	Wyoming	State of N.Y. (Letchworth Park)
Norway Spruce	13/2	113	53	Columbia	Unknown
Red Spruce	5/10	67	33	Otsego	Bennett Cemetery, West Laurens
White Spruce	6/4	75	36	Otsego	Bennett Cemetery, West Laurens
Sweetgum	7/6	56	64	Dutchess	Vanderbilt Est., Hyde Park
Sycamore	20/11	115	100	Dutchess	D.J. Norton, Red Hook
Black Walnut	18/6	103	123	Dutchess	Bard College Annandale
Black Willow	18/11	71	72	Albany	Mr. Wynn, Voorheesville
Golden Willow	17/9	70	101	Warren	Glens Falls Cemetery
Yellow Poplar	13/8	103	74	Dutchess	Vanderbilt Est., Hyde Park

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Wadler Manufacturing Company produces a line of Pondmasters used for keeping open farm ponds, lagoons, etc., during the most severe subzero weather.

Model 672 has 3 huge wings enabling a wind as little as 1 mph to turn the submerged 4-blade propeller under conditions as severe as 50 degrees below zero. This action permits cattle and wildlife to have warm water in winter, cool water in summer.

For information contact: Box NA, Wadler Manufacturing Company, Galena, Kansas 66739.

Rupp Industries has introduced the Ranch-Air line of pressurized make-up heating and ventilating equipment for animal agriculture.

Ranch-Air units are finding successful applications in farm and university installations in dairy, broiler, layer, swine and beef housing.

Further information is available from Jerry Stimson, Rupp Industries, Inc., 1800 West 94th Street, Minneapolis, Minnesota 55431.

Newest in the Avco New Idea line of pto manure spreaders is the No. 211 . . . a 116-bushel model built especially for smaller livestock farms, but with the same "heavy-weight" features of other Avco pto spreaders.

Features include water-repellent Penta-treated, painted wood sides and bottoms; welded one-piece hitch; same spreading element as the larger models; standard equipment jack; five speeds forward, plus neutral and clean-out; and shear pin protection against overload.

Optional equipment includes a hydraulic endgate with bottom rubber seal and a newly-designed pan attachment with double latch. The new single beater spreader can also be equipped with an optional upper beater for even finer shredding and better spreading.



"Lowest noise level and quietest cab ever tested" is report on the new 66 Series of International Harvester tractors. Acoustical padding and "Isomount" isolators to intercept transmitted vibrations were designed into the new series to lower the noise level at the operator's station.

New safety device developed by John Deere is PTO-Powr-Gard, which completely encloses the universal joint and pto coupler with free-spinning shielding to prevent a farmer's clothing from becoming entangled should he attempt to operate pto-driven equipment without the master pto shield in place. Important feature is a push-button coupler which makes it easier to attach or detach pto-driven equipment, and do it without removing the master shield from the tractor.

PTO-Powr-Gard will be standard equipment on the first John Deere products for the 1973 farming season. In the interest of farm safety, the company is making the new device available to all farm equipment manufacturers through a non-exclusive licensing agreement.

For the first time ever, 1973 Ski-Doo snowmobiles feature colors other than the traditional yellow with black trim. Three new TNT snowmobiles in metallic silver accented by black highlights, and a new golden bronze Nordic 640 ER with tan seat and brown-black trim, offer an expanded color selection for Ski-Doo customers. (The TNT 340S is pictured.)

The line also includes five machines with twin 15-inch-tracks, three Alpine and two Valmont models, and an economy rental and utility machine, the Skandic 18-inch-track unit.



Doc Mettler comments on:

A trip to cow country



It often seems that something anticipated with pleasure turns out to be a disappointment when it finally happens. The two weeks my wife and I spent in Switzerland this spring turned out to be the direct opposite. I doubt if I can adequately describe my full reactions to this wonderful country, but I will try. If you read my article in the August AMERICAN AGRICULTURIST, you know this is a continuation of impressions I gathered on a trip through England and Switzerland.

Switzerland is cow country. It may be as industrial as any place on earth, but the cow is basic, a way of life that even the most sophisticated city dweller understands. The cow and what she is capable of doing affects the whole economy. This was apparent within two minutes after we left the airport at Zurich.

We were driving a rented automobile on a superhighway, or autobahn as they are known there, and saw men loading dry hay that had been cut along the edge and between the lanes of the roadway.

No Waste

No grass goes to waste. Lawns as we know them are almost nonexistent. Every patch of land from vacant city lots to tiny mountain meadows between rocks and snow are either cut for hay or pastured or both. I saw hay being cut with scythes, two-wheel sickle bar mowers and modern windrowers. I saw it raked with wooden hand rakes, two-wheel walk-behind side delivery rakes, and modern tractor-drawn rakes. I saw it dried on racks, fence rows, in haycocks and windrows.

I saw it tedded by pitchfork and modern hay machinery. I saw it picked up by hand forks, by wagons designed like manure spreaders in reverse, and by modern balers. I saw it carried in baskets on old ladies' backs, by dogcarts, bicycles, horse-drawn hay wagons, and bale wagons similar to those used in North America. Regardless of how it was made, even when it was baled as we do here, someone followed up the equipment with a wooden hand rake to get every last spear.

Why all this emphasis on hay? The Swiss learned centuries ago what we in America are just starting to realize . . . that the most efficient protein producer is the ruminant. She can take fibrous plant material that man cannot digest and turn it into milk and meat to furnish protein that man must have.

Cheese, Veal

Little beef is eaten in Switzerland, but cheese and veal are on every menu. Breakfast in a typical Swiss home is coffee and boiled milk mixed half and half, bread, cheese and jam. The noon meal is generally the main meal and consists of potatoes, meat and vegetables . . . similar to our

main meal except that veal is most apt to be the meat, either in the form of wurst or regular cuts. Fish, in ample supply from the many lakes, is often used in place of meat. The evening meal is cheese, bread, potatoes and vegetables. Soup is apt to be served both noon and evening.

In mid-morning and late afternoon the pastry shops, where you can pick out what you want from a counter and then sit and eat with coffee, tea or hot chocolate, are popular. Hot chocolate and whipped cream are dairy products too, so our friend the cow is furnishing food in one way or another all day long.

Zurich is a beautiful city, a blend of modern and ancient, clean and free of slums. Even in this hustling metropolis the cow and her products are much in evidence. Dairy product stores are everywhere and easily recognized by piles of milk cans in front or at the side. Every small town we traveled through had at least one such store.

Milk Handling

I saw milk tank trucks, but far more milk is handled in cans. Several times I saw a man, and once a woman, hiking down a mountain trail carrying an oval-shaped five-gallon milk can strapped over the shoulders. I saw women delivering milk door to door from a milk can carried on a wheelbarrow. Raw milk is sold this way, ladled out into a small plastic pail and left sitting in a special little roofed box near the door or driveway entrance.

Since nearly all the milk is boiled, pasteurization does not seem important. However, pasteurized milk is available in stores and also delivered in cartons and sealed plastic bags. Milk is seldom used as a cold beverage as it is in North America, but as you can realize, per capita consumption of milk is high.

Heart disease rates in Switzerland are low, giving doubt to the story that high dairy product consumption causes this problem. I do admit that the Swiss get plenty of exercise; they walk or bicycle to places where we would either drive or just not go. On Sunday everyone takes to the country and relaxes by hiking or, in the winter, skiing. Their pace is no slower than ours. In fact, they seem to rush around as fast as any American until Sunday comes.

One Sunday, we went with the family my daughter Jody lived with two years ago, to the peak of a mountain called Rigi Kulm. We went up by cog railway, but hiked part of the way down through pastures filled with cattle.

Trails go through pasture fences with gates people can walk through, but cows can't. We met people in their eighties and families with tiny tots, all out "wandering" as they call it. Trails are marked by signposts listing distances in minutes of walking time.

(Continued on next page)

American Agriculturist, September, 1972

I had expected to see beautiful wild flowers in the pastures and was not disappointed. I also expected the green grass and the snow-capped mountains and sparkling lakes, but I was not prepared for the sounds of Switzerland. Coming down the Rigi that day we stood and listened to literally dozens of different tone cowbells, a brass band playing a mile away at the top of the mountain, rushing mountain streams and the happy cries of children. Added to all this from time to time would come the sound of young men singing in perfect harmony.

To me no composer could ever write, nor any orchestra ever play, a combination of sounds as beautiful as these. A Sunday on the Rigi or any of hundreds of other places where the Swiss relax must bring refreshment to both body and soul. I can understand why they live so long and love their country so much.

Mountain Farm

Coming down the Rigi that day we stopped near a typical mountain house-barn combination. In front were pastured 15 Brown Swiss cows, and in another pasture about the same number of assorted young stock. The grass was lush and I understand that due to the large amount of rain it is lush all season. Higher on the mountain snow still lay in the hollows and the grass was still brown. The cows were fat and clean, despite having been out of their valley barn but 48 hours. I didn't see a thin or dirty cow anywhere in Switzerland.

The young farmer and his wife invited us in to see the house and barn. The furnishings were plain but neat and easy to care for. This couple would remind you of any prosperous young farm couple here at home and looked no different than young people we met in cities and towns. They were surprised to find an American with a Swiss name, but took for granted that with such a name I had to be involved somehow with cows!

Cattle are kept in the villages and lower areas during the winter and sent to the mountains for a few weeks in midsummer when grass follows the snows. Several farmers will own an Alpine pasture and will each send some younger cows there to be cared for by one of the families. Older cows stay in the valley farms and are milked there. Snow starts in August in these high pastures. Most of the milk, from mountains or valleys, goes into cheese. In some valley farms I visited, milk was picked up twice a day so cooling on the farm was not always necessary.

Breeds

There seemed to be as many Simmental cows as Brown Swiss. The Swiss on an average had better looking udders than I had expected, and were of excellent dairy type. The Simmental had huge teats that one farmer said made difficulties in machine milking.

This farmer wanted to switch to Holsteins as some of his neighbors had done, but the three Holsteins he had imported from Canada

to add to his herd of 30 Simmental hadn't done as well as he had been led to expect. His Simmental averaged 6,500 kilograms (about 14,300 pounds) of 4 percent milk, which, considering that it was made on nearly all roughage, was not too bad. His imported Holsteins did not do that well. I looked at the three Holsteins and was ashamed to think that someone had shipped cows that poor in type all the way from North America.

A third breed in Switzerland is the Fribourg, but I saw only one herd of these. They were huge and built like the Simmental but were black and white and marked like Holsteins.

While in Switzerland we drove more than 1,500 miles . . . a lot,

considering that the whole country would fit four times into New York State. The Gotthard pass took us through 20-foot snow banks though it was June; two hours later we were down into the Italian section of Switzerland where the lake shores have palm trees growing.

Each section of Switzerland . . . whether it be German, French, or Italian . . . is completely different, growing different crops and having houses of different architectural design. I was surprised at the amount of truly flat land, though mountains were always in sight.

Roads are excellent and though the Swiss are nice people to meet on foot, they are demons when they get behind the wheel of a car. Speed limits on the autobahn are 90-120

kilometers per hour (about 55 to 75 mph) and few cars travel under the 120. No one ever wants to tell me Americans are the worst drivers in the world!

Other than being scared by the wild driving, we found nothing but friendliness and understanding in Switzerland and were sorry when our visit was over. The whole world has much to learn from the Swiss in matters of government economics, ways of doing business and life in general.

Some might say I have over-emphasized the importance of the cow in Swiss economics, but I sincerely feel that the conversion of grass to human food through the bovine rumen has much to offer this world of hungry people.

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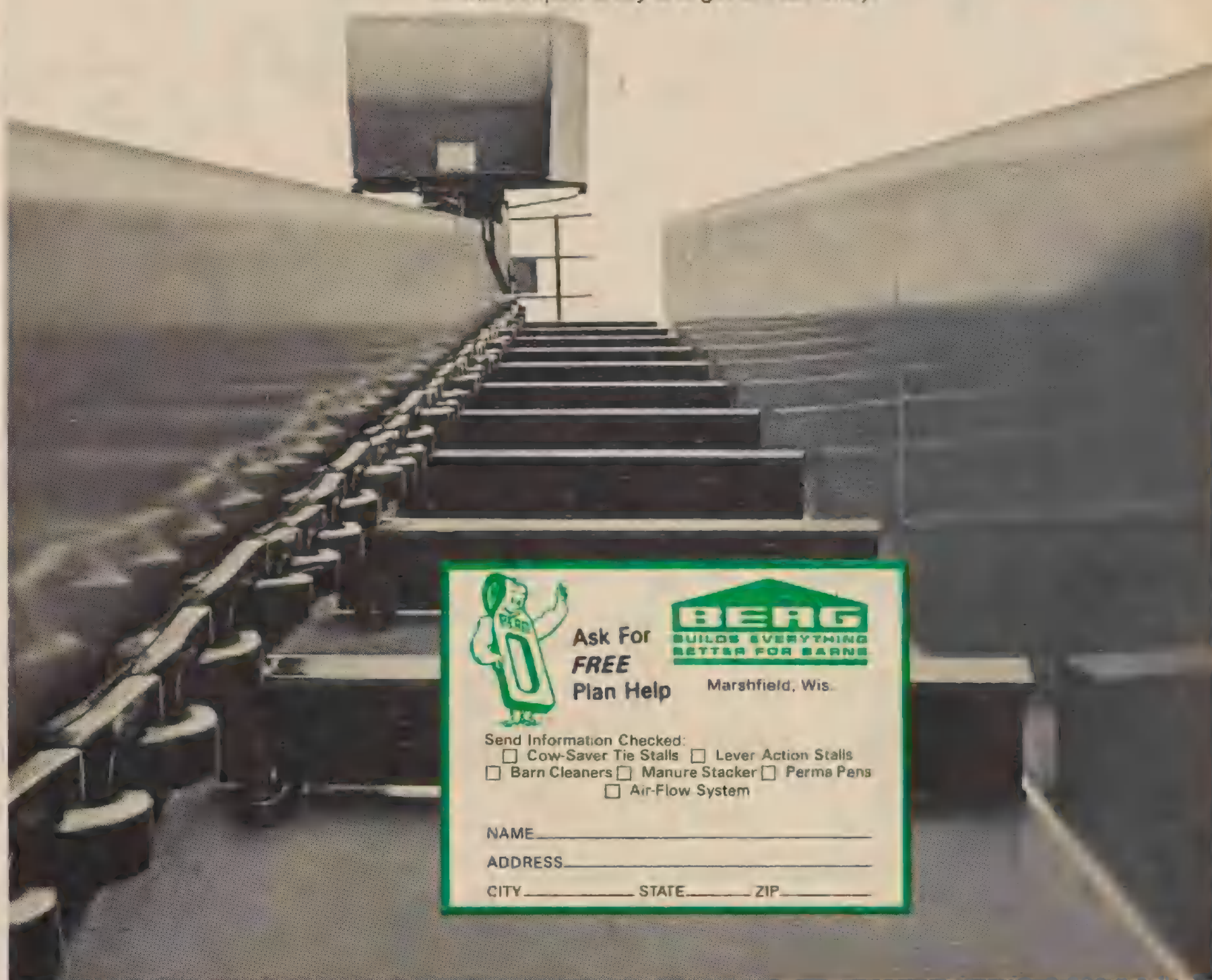
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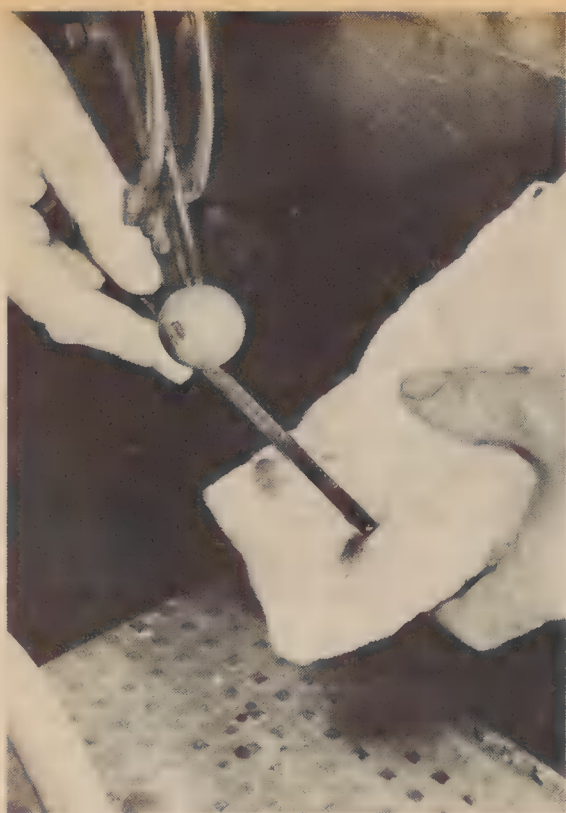
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Got an oil-eater?

by Wes Thomas

Here's how to put it on a diet

ALTHOUGH worn piston rings are usually considered to be the main cause of excessive oil consumption, there are several other potential trouble spots. Basically, all the difficulties can be divided into two general types:

1. Oil enters the combustion

chamber where it is burned and passed out the exhaust system.

2. Oil escapes from the engine directly to the outside.

When breaking in a new or an overhauled engine, keep in mind that the engine may continue to use oil until the new piston rings become

seated in the cylinder walls. As much as 100 to 200 hours of operation may be required, depending upon cylinder-wall materials, engine speed, and how heavily the tractor is loaded.

Don't Idle

Don't idle or load the engine excessively during break-in, but keep the radiator temperatures up to normal. More engines are damaged from running **too cold** than too hot. For best results, an engine should be broken in at the same temperature at which it will normally operate under load. This helps seat the rings properly and prevent oil consumption.

Don't start the break-in by allowing the engine to sit and run at idle speed. The low speed doesn't throw enough oil onto the cylinder walls for good lubrication of piston and rings. Thus, excess wear and possible oil consumption is being started right away.

Before the engine is placed under full load, it should have about 50 hours of light-load operation. Don't try to see how much the tractor will pull the first day in the field. If it is necessary to use the tractor immediately on a heavy drawbar load, shift to one gear lower than that which would normally be used to pull the load.

Here's a list of other situations that can cause excessive oil consumption:

Valve Cover — The gasket between the valve cover and the engine head may have been damaged at installation, or it may have hardened and cracked with age and from heat of the engine. To retain the oil which lubricates the rocker arms and valve stems, the gasket should be replaced.

Be sure to clean away all scraps of the old gasket from both the head and the cover and, if recommended, use the proper adhesive to help hold the gasket in place. Be sure to tighten the cover retaining screws and bolts evenly to apply uniform pressure to the gasket.

Different Gasket

Valve Sideplate — The gasket here is usually similar to that under the valve cover. However, the side plate in many engines is not removed between engine overhauls. Thus it is disturbed less often, but there is also less likelihood of its being replaced. Follow the same precautions as for the valve-cover gasket in replacing the gasket under the sideplate.

Oil Filter — Improper installation

(Continued on next page)

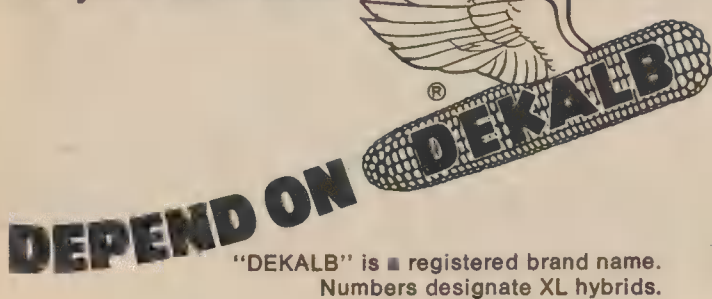
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of the filter cover when replacing the cartridge is the usual problem here. Be sure to use the gasket provided with the replacement cartridge. Make certain that it is properly installed, then tighten the filter housing arrangement carefully into place. After each filter change, the filter housing should be rechecked for any signs of leakage.

Main Bearings — Pressure developed within the crankcase because of clogged breathers may force oil past the rear main bearing onto the clutch facings. Or it may force it past the front main bearing where it will be picked up by the fan blast and blown over the engine. Regular servicing of breather filters prevents the leak-producing pressure build-up.

Oil Pan — Although the pan itself is not removed frequently, the gasket between the pan and the engine block can harden and crack with age . . . or vibration may cause the fasteners to work loose. Since the oil must be drained from the engine before the pan is removed, replacement of the oil-pan gasket can be done most conveniently at the time of engine-oil change.

Drain Plug — When the plug is reinstalled after draining the crankcase for engine-oil change, make sure that it seals properly. In some cases . . . with repeated use . . . the metal gasket may be damaged and require replacement, or through carelessness the threads on the drain plug may be damaged. Even a slight leak at the

drain plug is important because it continues whether the engine is operating or not.

Intake-Valve Stems — The valve stems are lubricated by the oil supplied to the rocker arms. Engine vacuum tends to suck in oil through the clearance space between the intake valve stems and their guides. Thus, most valves include some means of sealing to prevent the oil from reaching the combustion chamber.

However, with use the seals may gradually fail and permit excess oil flow. They should be replaced each time the engine is overhauled.

Piston Rings — To permit adequate lubrication of the cylinder walls and yet prevent the lubricant from being burned on the combustion

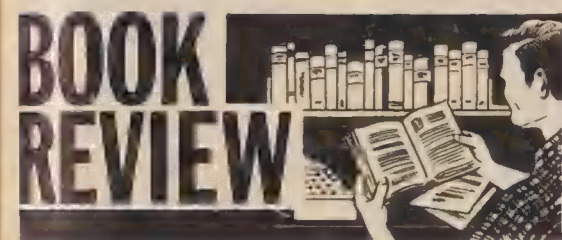
stroke, the piston rings must wipe the oil from the cylinder walls on each down stroke. As the piston rings and cylinder walls become worn, the seal becomes less perfect so that the oil tends to be sucked into the combustion chamber on the intake stroke. New rings (and in some cases, reconditioning of the cylinder walls) are required to correct this situation.

Connecting-Rod Bearings — Some of the lubricating oil supplied under pressure through the connecting rod is deliberately allowed to escape past the connecting-rod bearings to lubricate the cylinder walls. When the rod bearings become excessively worn, the extra oil which escapes may exceed the capacity of the piston rings to wipe it from the cylinder

walls. Thus, some of the oil enters the combustion chamber.

Tilted Engine — A slight tilting of the engine, such as when working on a slope, can increase oil consumption. Usually, this results from the excess oil which flows down the rocker arms to the valve stems and guides. Since the tilted position of the engine must be tolerated for certain tractor uses, excess oil consumption occurring only during such use should not be cause for alarm.

Vacuum-Fuel Pump — Although tractors are not normally equipped with a combination vacuum-fuel pump, they can be a source of difficulty on automobiles and trucks. If the diaphragm on the pump is cracked, oil and air can be sucked from the crankcase through the leak.



DAIRY CATTLE SCIENCE

by Dr. M. E. Ensminger

Today's students and dairymen need an in-depth book where they can get instruction in every phase of dairying . . . breeding, feeding, milk secretion, health, buildings and equipment, care and management, and marketing. These needs are fully met in **DAIRY CATTLE SCIENCE**.

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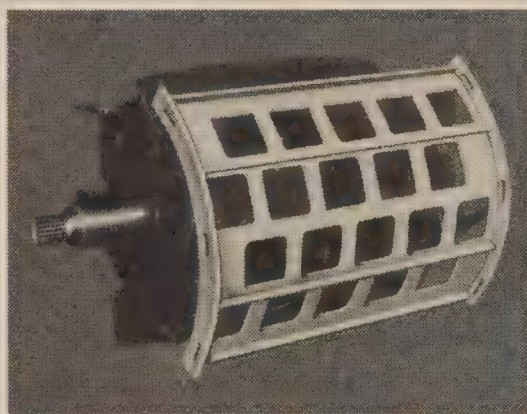
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These fertile acres, buildings, livestock, and equipment represent a very large investment . . . requiring some advance planning in order to do an adequate job of estate transfer.

Estate planning

by Gordon Conklin

IT'S been said that two of the certainties of life are death and taxes. Equally inevitable is that someone will someday have the job of transferring your estate to others left behind.

As with purchasing a tombstone or cemetery plot before death, there are certain psychological blocks to consideration of estate planning before the fateful hour. But it's a job that needs doing . . . especially among farm families that typically have estates rapidly increasing in amount.

Not long ago, Elwyn Voss, Cooperative Extension agent in Chenango County, New York, completed a research study to form the basis of a thesis for an advanced degree. The thesis title is, "Estate Planning, Its Use and Importance to New York Farmers."

Interview

In an interview exploring the subject of estate management, Elwyn made the following response to questions:

How did you get information from families . . . and how did you decide which ones?

We tried to select farms that will be representative of New York State agriculture in the 1980's. A net farm worth of \$200,000 is expected to be typical on an Empire State dairy farm in 1985 . . . average assets per farm in our study amounted to \$240,000.

The 32 farm businesses included in the study were not a random sample, but tended toward the 100-

cow dairy farm size, or equivalent businesses having poultry, fruit or vegetable enterprises. The farms selected are located in 20 different counties across the state. These farm families face today the estate planning problems and opportunities that will be typical of an increasing number of farmers during the 1980's.

We interviewed each farm family in considerable detail to get the needed information.

Sizable estates . . . successful farmers . . . isn't it a safe bet that almost all these 32 farm businesses were well covered by detailed estate-transfer arrangements?

Not exactly . . . we found that two-thirds of the farm operators either had no will, or the ones they had were sadly out of date! The value of these farm businesses had increased substantially over the past 20 years, and a will drafted 10 or 15 years ago would be of questionable value in meeting the objectives of the owners involved. If a will is absent, or out of date, it's probable that estate planning has been minimal, or is out of step with the changing farm business.

Embroided as they are in day-to-day production management, farmers often aren't aware of the need for estate management. Unfortunately, not many agribusinessmen or technical people associated with agriculture have called it to their attention.

Farmers tend to think of attorneys as technicians . . . for making deed abstracts, for instance . . . rather than as counselors to help in making

major long-term decisions.

What did you find to be some of the objectives of estate management?

Well, the farmers and their wives listed four major ones:

- Provide financial security for the wife (this appeared to be the one with top priority)
- Cut estate taxes to a minimum
- Keep the farm in the family
- Be fair to all heirs

Do you know of instances where lack of estate management was detrimental to the farm business, or unfair to people involved?

Take for example the son, an only child, who works on the farm for his parents, receiving wages . . . with the expectation of inheriting the farm someday. His father dies, and the jointly-owned property goes to the boy's mother.

She eventually remarries . . . her son continues in the role of hired man . . . and then the mother dies. A few years later, the stepfather dies without ever changing his old will, and all the property goes to his children by a former marriage!

Or consider the case of two brothers who are partners in operating a farm business given to them by their father. They've enlarged it with borrowed money . . . and net worth has skyrocketed because of dramatic increases in land values.

The other brother dies unexpectedly and his heirs want his share of the business now . . . worth \$102,000 . . . in liquid assets so they can leave farming and go into another business. However, the

younger brother couldn't suddenly begin paying the 7 percent annual interest on that amount, let alone the principal! Besides, the partnership still owes for the money used for expansion, and the surviving brother is now also solely responsible for paying on that debt. The only alternative may be to sell the entire operation.

What might have helped that latter situation?

Well, an adequate partnership arrangement can help. For instance, life insurance on each partner's life . . . the proceeds designated to help buy out his share of the business in case of death . . . can ease the strain.

Probably even more important is a carefully spelled out buy-sell agreement that acquaints everyone concerned with the business procedures to be followed in case of untimely death of one partner. Such an agreement can provide liquid assets to the estate of the deceased, establishes a market value for the decedent's farm assets, and may prevent the liquidation of the farm business.

The buy-sell agreement is equally important in father-son partnerships.

You mentioned life insurance as useful in estate management . . . should all of this be payable to the surviving spouse?

Not according to many bankers and attorneys. They point out that life insurance can help in providing liquidity . . . available cash to pay estate taxes, as well as attorney and executor fees.

However, this isn't so if the beneficiary is the spouse. It's better, say the experts, to have at least some insurance payable to the estate so the executor has some liquid assets available. If he has to sell dairy cattle to get needed cash, he may be forced to seriously curtail (at least temporarily) the income potential of the farm.

Speaking of executors, should family members always do that job?

Frankly, no. In some cases, members of the family can adequately serve in this capacity . . . but in many instances, particularly where sizable (and often complicated) estates are involved, a banker or attorney will do a more satisfactory job.

The majority of farmers appoint their wives as executrix. However, she may not have much experience in handling the variety of estate assets, and she may be pushed toward unwise decisions by family pressure.

Appointing a family member as executor keeps the executor's fees "in the family," but this consideration may be outweighed by the advantages of having the job done by a "pro."

The theory sounds great, but some farmers report difficulty in finding an attorney with real in-depth understanding of farm businesses. How do they find out?

Well, I'd check with the trust officers of a local bank . . . with the Extension Service people working in the area of farm management . . . and with credit agencies in general who have a substantial volume of business with farmers.

Some attorneys are not sufficiently trained or experienced in farm business intricacies to do an ade-

(Continued on next page)

American Agriculturist, September, 1972

quate job at drafting technical business agreements, and handling the really complicated parts of estate management. However, some are and a systematic search will usually reveal who they are. Ask an attorney you're considering for the job whether he's done this type of thing before . . . and for whom. Then go and talk with the farm families to get their reaction to the quality of the performance.

How about gifts to heirs prior to death as a means to avoid inheritance taxes?

Gifts can be useful in transferring property . . . they are simple to arrange, and they often go to people at an age when they need the money most for family and business. At certain maximum levels, there are gift taxes that must legally be paid, so that sound legal counsel should be followed when making gifts.

The avoidance of inheritance taxes should not be a **primary** consideration in estate management . . . they usually are not all that large. Their minimization is one legitimate objective, however.

Remember also that people are living longer than they once did . . . and may need more money in later years than they had expected. Furthermore, unforeseen events . . . such as a long and costly illness . . . have a nasty habit of lousing up the best laid plans of mice and men!

Consider the case of the dairyman who made an outright gift to his son of half of all farm assets, thinking thereby he would avoid inheritance taxes later on. Everything was fine until the son was killed in an auto accident . . . and the father suddenly found himself in partnership with his son's widow. From then on, the farmer faced the uncertainty of possibly being forced to buy back the gift he had made if his daughter-in-law wanted to cash up and convert her inheritance to a new home in town . . . or else sell the whole business and convert it all to cash.

You've raised some questions about some time-honored customs . . . are you prepared for some static from people who disagree?

Sure . . . because I think it's in the long-run best interests of many farm families to make some shifts in attitudes toward estate planning.

This business of hiding wills away, and then having the family gather after the funeral for the "reading of the will" to see who gets what, is absurd when it comes to a modern farm operation. All this should be worked out by those concerned well in advance of death . . . and everyone should be thoroughly acquainted with the situation. A farm business may not survive if estate mismanagement is the order of the day . . . sons may decide to work elsewhere if parents refuse estate planning . . . business growth can be hamstrung by the uncertainties created by ignoring the problem.

What is the general process whereby farm families begin effective estate management?

First, they must have an awareness of the need . . . realizing the very real advantages (financial and in terms of harmonious family relationships) offered by estate planning.

Secondly, they need to give some thought to **retirement plans**. Most farmers' "retirement plan" is heavily based on financing from the farm business itself . . . and a farmer is understandably reluctant to think of turning over any of his assets to anyone unless he can see how his own retirement is being considered in the process.

After this is resolved comes **estate management planning** . . . including such things as buy-sell agreements between partners, perhaps farm business incorporation, the updating of wills, purchase of business life insurance, etc. There are people who can help . . . Extension agents, college specialists, farm credit personnel, and attorneys.

After laboring 27 years at the University of New Hampshire, dairy specialist C. Hilton Boynton (left) recently retired. Widely known as an expert cattle judge, Prof. Boynton has judged at all international and national cattle shows for all five breeds.

Herdsman Kenneth Fowler holds a potential member of the UNH's famous dairy herd.



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Big, fast power; beautifully compact profile. Six-cylinder turbocharged, intercooled diesel. Row-Crop and Standard Models.

BHL



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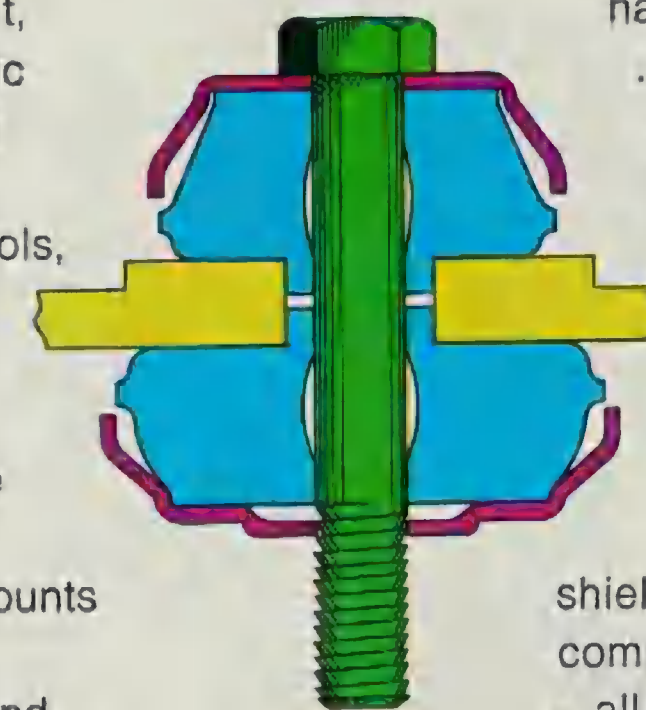
New Sound-Gard Body... more than just a cab, it's a sound benefit-filled environment

Sound-Gard Body, plus both the 2-post and 4-post Roll-Gard protective frames and seat belts, have been designed and manufactured to protect the operator from the hazards of roll-over in compliance with ASAE and SAE standards and most federal and state regulations.

Sound-Gard Body—even the name has a pleasant, relaxing, and solid sound. And that's characteristic of what Sound-Gard is. Call it simply a cab and you've missed the mark. Sound-Gard is a package unit complete with seat, all controls, instrument panel, and a platform. It is factory-installed on a vehicle that is designed especially for it, yet it isolates you from this same vehicle.

Exclusive Sound-Gard mounts (upper right) help seal out vibration—a source of noise and discomfort—and smooth jolts, up or down, to help ensure riding comfort. These mounts, at each corner of the Sound-Gard Body, are made of heavy rubber. As loads are imposed, the rubber is forced into a special steel washer which limits *both* the *amount* and the *rate* of compression. As the tractor crosses rough ground, the Sound-Gard unit is free to move very slightly—so all instruments and controls remain in proper relation to you. Vibration is

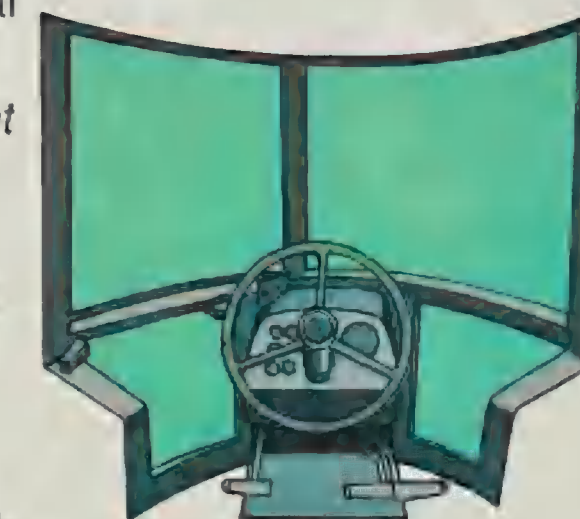
virtually eliminated and shocks are cancelled out by this exclusive feature. Features? Look! More than 40 square feet of tinted safety glass—for a picture-window view in all directions... dual 2-speed windshield wipers... pressurizer to keep dirt out... sturdy steps and



handholds... wide-entry door... window and door seals that stay put... courtesy light... complete acoustical padding plus space-age materials for compact appearance and long life... black non-reflective interior... a light that spotlights the control console at night... husky fenders with shielded high-low beam lights... complete safety lighting, front and rear—all this and more as regular

equipment. Add the optional hot-water heater, air conditioner, or both—plus the AM radio or the radio and 8-track stereo tape player... and you'll realize how good farming can be inside a Sound-Gard Body tractor.

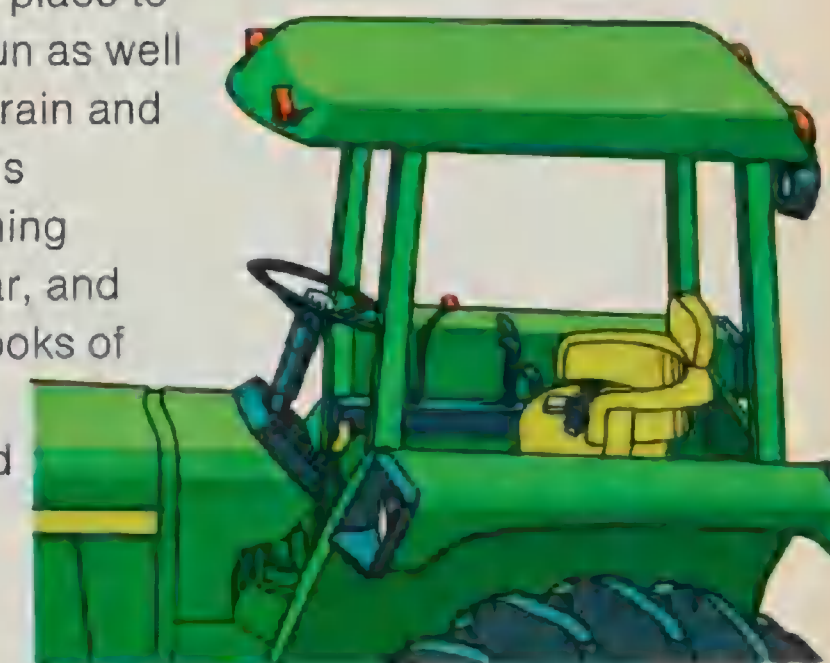
Backing it all up is a sturdy steel frame that provides roll-over protection in most accident situations. This frame conforms to ASAE and SAE standards for operator protection. It's much like insurance—you don't want to have to use it, but it stands ready to serve in dramatic fashion if the need comes. In this respect, the Sound-Gard Body benefits your family and friends as well as yourself—as one more sound idea available on these new models.



New 4-post Roll-Gard

A new 4-post Roll-Gard protective structure is an integral part of the Sound-Gard Body, as shown in red at the left. It is also available factory-installed with the attractive canopy shown here. You enjoy the same degree of roll-over protection as you do in a Sound-Gard Body, and you'll have a shady place to work under a hot sun as well as a shield against rain and snow. The canopy is equipped with warning lights, front and rear, and adds to the good looks of the tractor.

A 2-post Roll-Gard protective frame is available for field installation.



John Deere,
for a good sound reason

BHL



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Home business dollars and sense

by Henry L. Farr*

IN Hanover, Massachusetts, on the South Shore, stands a wood-shingled building just ten feet square. It has two single-paned windows and a narrow door, the weathered date, 1821, and a sign "Country Shoemaker's Shop."

Perhaps your ancestors brought in some extra money with a few

pairs of shoes for the neighbors after the family had been measured and shod.

Maybe your great, great grandmother earned some silver pieces by stitching pre-cut men's suits delivered to the farm in winter when the men were out at sea. The money made it possible for her to get "boughten" goods from the pedlars.

Earning money at home has always been an American tradition and

I believe the opportunities are as great today as ever.

I like to tell the story of the policeman disabled on duty who moved to a Kansas farm to raise enough pork and potatoes to exist on. He wrote me that he and his wife had built up a nice home business in developing and printing camera films for drug stores and camera shops three counties around. He was thinking of buying enlargement equipment so he would no

*Instructor in home business training, adult education program in the public schools of Haverstraw, New York... and proprietor of Farr's Print Shop at Gamerville, New York.

longer have to farm out this profitable work.

A number of farm women who learned typing in high school continue to earn by typing theses, manuscripts, etc., at home.

You ask: How do I get into such a thing? What is the best project for me?

Advice

When Frank Johnson was classified ad editor of *Popular Mechanics*, he wrote my adult education class this advice:

"First, study yourself . . . your training, experience, and desires for the future. Then study your community. What will your neighbors buy from you? What do they need?"

To get started sensibly, I suggest writing to the nearest office of your Better Business Bureau. See your Chamber of Commerce for the address. Ask for a free copy of their bulletin on home work ideas. I warn you, however, against buy-back schemes, envelope addressing, invisible weaving and export-import.

Make a list of the "opportunities" listed in the ads in *Science and Mechanics*, *Women's Circle and Work Bench*, all available at newstands. Some items will be obvious trash; omit them from your list.

One Case

Here's a case to think about: A Michigan farmer wrote me that he makes a good thing of cleaning typewriters. Most are just plain dirty and need nothing more than an air hose and stiff brush treatment. "Never much more adjustment than tightening a few screws," he wrote, "and I have my five or ten dollars."

Your next step in making a choice is setting down a few details about yourself, as Frank Johnson suggested. Ask yourself:

- Do I enjoy working with fine tools, tweezers?
- Do I like meeting people and talking with them?
- Do I want something now, or do I want something to build big for the future?

Think of other questions to add to this list.

Another Case

Another experience to help you think:

Years back, in Stockton Springs, Maine, where we have our retirement farm, a family appeared with a peaked house built on the bed of a truck, which they parked on a side road. Each afternoon they came onto the highway to sell their beautiful

(Continued on page 31)

She has farm needs, too...

A new kitchen, a washing machine, a freezer, furniture, her own car. Farm needs? They are to her . . . and to us. Farm Credit Service knows that running a farm is more than a man's job . . . and it takes more than seed and fertilizer. For your financial requirements . . . farm or personal . . . see your local Farm Credit Representative. He's **always** ready to help with a PCA loan to fit your needs or hers.

You get a lot more than credit from your **OWN** Farm Credit Service.



Offering Land Bank and Production Credit Loans



FLETCHER THE 4-H®R



"My Dad's busy right now and can't be disturbed, and believe me, you'd disturb him!"

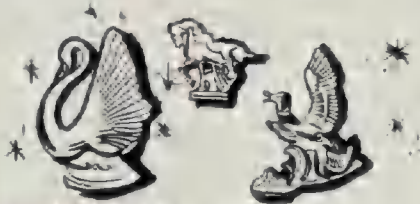
American Agriculturist, September, 1972



DAIRY

BARN ADDITION

Richard McGuire farms near Cambridge (Washington County), New York . . . when he's not away on



HOME BUSINESS

(Continued from page 30)

leather fireplace bellows. Is this for you?

The next step in selecting is to check your feelings about each of the various opportunities on your list. If you just cannot meet people, write "no" by rubber stamps. If you like color and lines, write "yes" by decoration. This is a methodical, thinking approach and you are doing something.

If you are handy with small tools, write to the American Craftsmen's Educational Council, 30-East 52nd Street, New York, New York 10019 for a copy of "The Craftsman Sells His Wares."

Member

I am a member of the Maine State Craftsmen Association and attend the fairs. I notice that on the first day, when they do a wholesale business with gift-shop buyers, there are very few wares of real quality left for the general public later.

When I interviewed nine gift-shop owners in the summer of 1970, seven were short of such items as quality miniature fishing boats and metal-winged gulls. My wife found in one area that she could not buy another "little-farmer mail box," which I use for papers on my desk. Ask the gift-shop buyers what they need . . . what's selling well at the moment.

Write your state agricultural college to get the name and address of the Office of Economic Opportunity nearest you. The government pays OEO people to advise you in learning to make and sell handicrafts.

Be alert to change your "thing" for better sales. In 1889, William Wrigley started selling baking powder with pieces of the new chicle as a premium. When he realized the popularity of his gum, he made a switch that brings in millions a year.

Just as your Better Business Bureau will warn you away from schemes, the Small Business Administration, 1441 L Street, Washington, D.C. 20416, will guide you into good opportunities. Ask for your free copy of the 1970 edition of Bulletin No. 1, "Home Business and Handicrafts," by J. Wade Rice. It lists 37 suggestions with many references.

Mr. Rice retired in 1970; that year, he wrote my class:

"Get the facts and be guided by them. Running a home business, a profitable home business, is just as serious a matter as running a restaurant or a filling station."

What pleasant, profitable service or product will your neighbors buy from you?

American Agriculturist, September, 1972

business as president of the New York State Farm Bureau.

In 1971, he enlarged his existing stable so that he now has 55 stanchions in the old barn, 56 tie-stalls in the addition. Although generally pleased with the barn enlargement, he points to a couple of situations of interest.

One was that some cows became disoriented in the barn addition because it has no supporting posts . . . nothing to provide any landmarks to guide a cow to her stall . . . and each cow was expected to return to the same place each time. Dick reports that cows on the ends of the

two rows of cattle had no problem finding their stalls, but cows assigned stalls toward the middle took months before being able to locate their home port each time when returning from turnout.

The mangers in the addition are floored with ceramic tile . . . "seconds" of the type used in bathrooms. The concrete floor was poured, then the tile grouted on the top.

Dick reports he'd consider doing this a bit differently in the future . . . perhaps using the larger tile of a type designed for industrial use, and setting them in wet concrete

when the floor was being constructed. The "seconds" of the type presently used are too easily broken by cows putting their feet ahead of stall curbs, and they're sometimes cracked even before installation . . . one reason for being "seconds" in the first place.

Dick feeds 16 to 18 pounds of high-moisture ear corn per cow per day to all cows . . . alfalfa hay at 15 pounds per cow per day . . . and corn silage free-choice in an outside feed bunk. Milking cows producing 25 pounds of milk or more daily also receive a 36-percent-protein supplement at a grain-to-milk ratio of 1 to 10.—G.L.C.



New Ritchie finish defies corrosion

CD-50 miracle finish...a new dimension in livestock watering... made tougher to last longer. To lead the life of Ritchie you've got to be tough. Big Ritchie was rugged enough before—with guaranteed heating equipment, non-stick, corrosion-proof valves; unfailing service. Now with the new CD-50 miracle finish no other livestock fountain takes so much abuse in use for so long. The CD-50 coating is fused to metal electrostatically. It's the toughest hide on the farm. Defies corrosion and rust. Defends against chipping and wear. A glass-like finish that's tough and sanitary—easy to keep clean. See the exclusive trademarked red and yellow Ritchie at your nearby dealer's.

Start leading the life of Ritchie.

Ritchie

Ritchie Manufacturing Company, Conrad, Iowa 50621



NEW MIRACLE FINISH

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Oneida, New York 13421

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Oneida, New York 13421



new **Tuffy** portable mill-mixer.

*The tough one
made for small and
medium producers!*

Allied's Tuffy makes on-farm feedmaking practical for the small and medium farmer raising any combination of hogs, beef, dairy, or poultry.

Tough and compact (good looking, too), Tuffy needs as little as 35-40 PTO hp, yet can mill up to 3 or 4 batches per hour. It's built for tough work. And it's priced within easy reach.

So now you can realize the savings of grinding and mixing your own grain and

hay — into low-cost, fresh feed as you want it and when you need it.

See your Allied Dealer and take a good look at Tuffy.

MIX 1 TO 3 BATCHES IN TUFFY PER WEEK TO FEED:

225-825 hogs/year
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Jim Tornabene (right), who incorporated his farm into the Smith-Coulter Corporation, discusses field spraying operations with John Coulter.

Muckland agri-enterprise

by Joseph Albino

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All Steel — Maintenance Free — Livestock — Storage

Mail coupon or phone today for complete information.

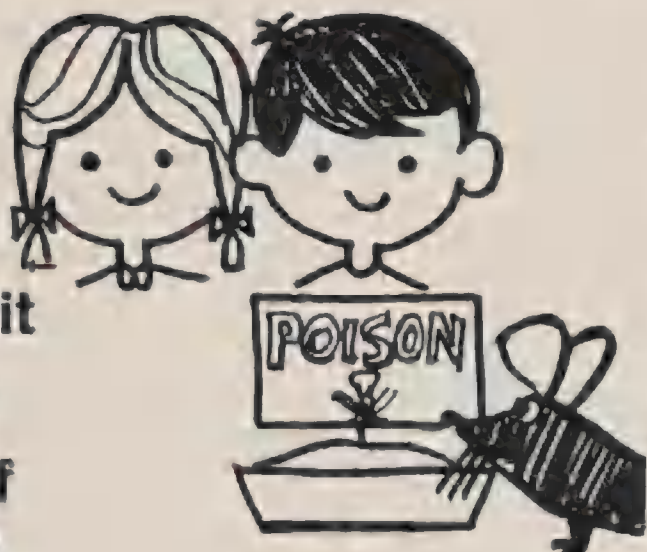
Wonder Steel Bldgs., RR #1, Ogdensburg, N.Y. 13669, 315-3932-2139

Please send me complete details on Wonder Steel Buildings. I am interested in a building of approx. _____ W x _____ L
Date planning to build _____

NAME _____
ADDRESS _____
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**Place Poison Bait
for PESTS
Out of Reach of
CHILDREN**

U.S. DEPARTMENT OF AGRICULTURE



THE Smith family of the Smith-Coulter Farm in Chittenango, New York, elected a couple of years ago to leave the agriculture enterprise. John Coulter, whose father established the farm in the 1920's, then set a precedent with one giant step. He made fifty percent of the business available to the owners of V. Giufre & Sons, a long-established marketing firm in Canastota, New York.

Farms and marketing firms have traditionally been at odds with each other. But Coulter, whose education has been in business management and experience in muckland farming, felt the new partnership with a marketing firm would enable the Canastotas to zero in on finding the best markets at the best price. He reasoned that he and his staff could then devote full time to growing the best-quality products. To date, the "marriage" has been completely successful.

Large Scale

Today, Coulter finds himself working muckland . . . drained and cleared swampland . . . on a large-scale basis. One of the largest growers of potatoes and onions in central New York, he harvests 600 acres of potatoes, 300 acres of onions, and, more recently, 40 acres of cabbage. The firm's investment in land, fertilizers and chemicals, seedlings, and manpower requires an annual expenditure of a half-million dollars even before a dollar profit is shown.

Dependent upon weather fluctuations, the firm has lost upwards of \$150,000 during inclement seasons with water-soaked fields preventing

the harvesting of crops. Yet, at the turn of the century, individual family farms, tilling ten to twenty acres of the very same land by hand, "made a good living." Viewing his spread as an agricultural enterprise as opposed to merely a farm, Coulter, active in the business since 1956 and firm president for the past five years, operates on a 4-M basis . . . including marketing, machinery, management, and men.

Employees

Year-round, this central New York agricultural enterprise employs a work force of 35 men, eight of whom have been with the firm an average of eighteen years. During peak seasons, spring through fall, Chicanos from the Southwest are additionally employed.

To provide these migrant workers with the best in satisfactory accommodations, the firm invested \$50,000 last year in five house trailers. These 12 x 65-foot units have full-size appliances, are carpeted, and have hot and cold running water, with even a chandelier over the kitchen table.

But, alas, Coulter had to devote four months plus several thousands of dollars last year to fighting a discrimination case brought against his housing setup. Taken to the State Supreme Court, Coulter won the case and was allowed to maintain his quasi-trailer park for the benefit of the migrant workers. He has found the Chicanos to be family-oriented and intelligent people who treat both co-workers and machinery with respect.

(Continued on next page)

On the level of management, this central New Yorker feels strongly that his employees need to derive an intangible satisfaction from their work, in addition to a monetary return. In an age of affluence, with the average individual's basic needs taken care of, psychological needs take precedence, he maintains.

In this vein, at regularly-held meetings, Coulter can be out-voted by his foremen on the day-to-day operational decisions of the agricultural enterprise. Too, the men are responsible for specific acreage and earn year-end bonuses should the yields from their lands be of higher quality and/or quantity than previous harvests.

As the firm has enjoyed increased physical growth, arrangements have been made for neighboring muckland farmers to incorporate their operations into the Smith-Coulter enterprise on a stock-transaction basis. For example, Jim Tornabene, whose family has grown onions for two generations, recently took this step, with Jim becoming an invaluable employee-manager.

Wide Range

Coulter has made it a point to periodically visit other farms throughout the country. As the trend toward increased mechanization has increased, he has gleaned the best of ideas, added those of his own (and those of his management team), gradually developing a completely-mechanized operation for the growing and harvesting of potatoes and onions. The firm employs a full-time mechanic who not only keeps the machinery in good repair, but also builds new equipment from scratch and modifies purchased equipment to meet the particular needs of the operation.

For example, this past spring . . . when heavy rains made it difficult to apply the pre-emergent sprays from wheeled machinery . . . the spraying unit was transferred to a wide-track crawler which was able to get onto the wet mucklands without sinking out of sight. Too, in the fall of 1971 . . . when similar wet conditions made onion harvesting difficult . . . large airplane tires were procured and, with related modifications, provided the increased buoyancy needed to move the harvesting unit over the soggy muck.

Improvise

"Every farmer, whether he has the money or not, has to keep up with the advances in machinery," insists Coulter. "In our case, because of the specialized nature of our work, we even get to the point of inventing and improvising equipment in our own shop . . . which features a lathe, milling machinery, sophisticated welding equipment, and special tools. Because of our short season, we need constantly to buy and to improve machinery which will enable us to obtain the maximum production in the least amount of time.

"For example, by developing a four-row potato harvester, it is now possible for us to harvest a 600-acre crop of potatoes using one machine and one crew as opposed to two machines and two crews, and doing the same amount of harvesting in

even less time. With the result, three valuable men are free to handle other harvesting responsibilities."

By working closely with V. Ciufre & Sons, Smith-Coulter enjoys a unique marketing arrangement. In fact, there is a market for all the crops produced prior to harvesting! The marketing firm becomes part of the agricultural enterprise to the extent of its investment. Because they enjoy more control over the product, they are able to merchandise more effectively. Conversely, the production firm understands more clearly the particular needs of the marketing firm and, free of marketing responsibilities, can concentrate more ambitiously on the business of producing a quality product.

Five large trailers have been purchased to house seasonal workers comfortably. Here, John Coulter visits with two school-age Chicana youngsters.



Farmers' favorite.

In the air or in the field, Champion spark plugs are the Number One brand in farm country. Latest figures show that Champion sells more spark plugs to farmers than any other brand. And Champions fire more of America's aircraft than any other brand, too.

That's because Champion engineers design a plug to precisely match every engine and every engine

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So remember, when you need spark plugs, ask for the farmers' favorite. Ask for Champions.



Toledo, Ohio 43601

20 million people have switched to Champion Spark Plugs.

Northeast FARM EXPERIENCE



COMBINATION BARN

For a stranger, finding the farm of Charles Wood near Chemung, New York, (address is Sayre, Pennsylvania) can be quite a trick . . . complicated as the path is by the recent erection of the Southern Tier Expressway just north of the farm. For a dairyman, though, the search is worthwhile.

Here you'll find an addition to a stanchion barn . . . the addition containing 80 free stalls, each featuring a rubber mat embedded in the concrete. The stalls are seven feet long and four feet wide, slope nearly two inches from front to back. A thin layer of wood shavings is placed on the mats once a week.

New Cleaner

Manure is cleaned out of alleyways in the barn addition by a Badger free stall cleaner . . . the blades moving along the floor at a rate of 5 to 6 feet per minute. Cows almost ignore the slowly-moving scraper blades, stepping over them casually while still placidly chewing their cud. Cross conveyors at each end of the barn move manure to the spreader.

The cleaner can be operated by time clock . . . at intervals of 15 minutes on up. During especially cold weather, the interval is shortened to prevent manure from freezing on the concrete, but Wood reports that freezing was not a problem in the winter of 1971-'72. Generally, the cleaners were operated twice a day, morning and evening.

There are 84 cows on the Wood farm at present, divided between free stalls and the 61-stanchion barn. Those cows that spend the day in the free stall area spend the night in the stanchion barn, and vice versa.

Grain Feeding

Most of the grain is fed in the stanchion barn, but two pounds per cow per milking are fed in the milking parlor to encourage cows to enter more enthusiastically. Silage is fed in the free stall area . . . hay

in stanchions, as well as in a hayrack in the free stall area.

Heifer calves are raised in an area especially designed for them, and located in an addition tying in with both the free stall area and the stanchion barn. Younger calves are quartered in tie stalls, then they go (according to age group) to two sections of free stalls . . . eight in one pen, six in another.

The name of the game in dairy farming tends to be **output per man**, and this outfit ranks high on that score . . . operated by Charles Wood and one employee. From silo unloaders to conveyors to manure cleaners to milking parlor and all the rest, though, Reddy Kilowatt's powerful arm keeps things moving! Maybe he could be called the silent partner!—G.L.C.

Editor's note:

The disastrous flood in the Chemung River valley in late June took its toll at the Charles Wood farm. Water rose to a depth of six feet in the dairy barn . . . 15 head of cattle were lost . . . 6 acres of cropland were completely washed away, and another 100 acres covered with a layer of sand and gravel.

But the farm remains in operation, and the equipment described here is functioning (after drying out and cleaning up).

FEED UREA

Brothers David and Carlton McKenney operate a dairy farm on the Indian Castle Road east of Little Falls, New York. Their father, Melvin, is also involved in the partnership . . . but no longer as an active participant.

There are 80 milking cows on this 250-acre farm, down from the 100 reached in an expansion program that started at the 27-cow level seven years ago. "We'd like to boost our herd average well above the 13,000-pound level where it is at present," Dave comments, "and tie up all the

loose ends that always accompany a rapid expansion in herd size. We think we can do this better by slacking off a bit in cow numbers."

Herd Split

The herd is split into two groups, with the cows producing 40 pounds or more of milk per day (the high group) in one group, less than that (the "lows") in the other. Those producing **60 pounds** or more of milk per day get grain (24-percent non-urea protein) in the milking parlor; others do not.

The high group receives a daily per-cow ration of 30 pounds of alfalfa haylage, 10 pounds of corn silage, 25 pounds of HMEC, and one-half pound of urea. The "lows" get 30 pounds of alfalfa haylage, 60 pounds of corn silage, and one-half pound of urea. Carlton comments, "The low group gets corn silage in place of HMEC . . . the only reason the 'highs' get corn silage is to prevent drastic feeding change when a cow changes groups." Cows at this farm have been getting urea as a protein supplement for six years.

The McKenneys fed one-half-pound of urea per cow per day for a considerable time, but have experimented with rates as high as one pound. However, they found feeding problems at the higher rate, and have settled on the one-half-pound rate as their maximum. This meets the "1/3 rule" . . . 1/3 of the cow's protein needs can be met with artificial protein; the other 2/3 must come from sources like alfalfa or soybeans.

Mixed

Urea is dribbled from a commercial distributing device into HMEC as it passes by in the conveyor . . . then is further mixed with silages by a Badger rolling distributor along the feed bunk. As a precaution against getting too much urea in the daily batch of silages, the McKenneys do not fill the hopper on the dribbling device . . . but rather place in the hopper only the amount required for the feeding being run through.

"We think urea is an economical source of protein," Dave comments. "We've had no recognizable toxicity problems over the years we've fed it, and our figures show we've saved a pile of shekels as compared to buying soybean oil meal!" Other than the already-mentioned grain fed in the parlor, no supplemental protein is purchased except for the feed-grade urea.

No Hay

No hay is fed . . . except for the rare occasions when cows go off feed for some reason. Then hay is fed, and Carlton reports, "The cows really go for the hay . . . fight to get at it." With silage practically the only roughage for the milking herd, you'd expect the storage space available for it . . . two 20×60's, a 24×60, and a 20×30 for HMEC.

Cows are milked in a double-four herringbone parlor; one man uses eight milker units. Although Carlton is the "crops man," and David the "cow man," they alternate week by week in milking. This way, both are familiar with the herd, and either one can run the show for a time when the other goes on vacation.

"I wouldn't milk cows without

the opportunity of a vacation," Carlton comments. He traveled to Russia for two weeks within the last year . . . David journeyed to Florida for 10 days last spring. Each plans for at least two weeks away from the farm annually.

An electrified squeeze gate, planned and built by the McKenneys, helps in one-man milking. It moves cows into the parlor from the holding area, but is seldom needed for even the most ornery cows after they learn its purpose.

Speaking of ornery cows, Dave reports a management error he'll not repeat. He purchased two first-calf heifers and introduced them into the herd . . . where the other cows proceeded to push them around so badly that both had to be sold.

"Heifers should be raised so they become familiar with free-stall housing early if they're to be in free-stall barns," Dave comments. "They need to get used to the competition . . . and they can more successfully be introduced into the herd in batches, rather than just one or two at a time." —G.L.C.

CALF RAISING

Warren Skellie and his wife, Norma, operate a 40-cow dairy farm near East Greenwich (Washington County), New York. During the last nine years they haven't lost to disease a calf that was born alive!

Such a record is an enviable one for any dairy herd, but especially so with this purebred one from which some heifers are regularly sold to other dairymen. When premium prices for herd replacements are involved, the financial incentive to save all calves is especially high.

An "ell" on the conventional dairy barn contains two areas divided into pens, including two maternity pens. It is here that calves first see the light of day . . . unless, of course, cows are on pasture and calves can be dropped outside.

In either case, the navel of the newborn calf is dipped in iodine to prevent infection. The cow and calf are together for 24 hours, and the Skellies make sure the youngster gets some disease-fighting colostrum in his tummy soon after birth.

From the maternity pen, the calf goes to an individual stall . . . separated from his neighbors by plywood partitions. There, it will receive medication as needed. "We've used about every antibiotic available at one time or another, but have no routine medication program," Warren comments.

Hay and grain are placed before the calves as soon as they arrive at the individual stalls. These stalls, by the way, are not slat . . . or elevated above the concrete platform. Fine sawdust bedding is used to keep calves dry . . . and stalls are cleaned "several times a day," by the Skellies when they do chores in the dairy barn.

The calves are fed whole milk (no milk replacer) individually from a pail; no nipple pails are used. The pails are washed twice a day with wash water already used in the process of cleaning the around-the-barn pipeline. Mrs. Skellie does the calf feeding until calves are weaned

(Continued on next page)

American Agriculturist, September, 1972

Mechanized cleaner blades move manure from alleys in the free stall barn, then come to rest under a concrete walkway at each end. Rubber mats embedded in concrete form the beds in each stall.



at eight weeks of age. She's also head bookkeeper for the entire farm business . . . but she's never milked a cow.

At about 3 months of age, the calves move from individual stalls to pens in the "ell" already mentioned, where they're grouped roughly according to age. It's well-ventilated, but has no drafts on animals.

Warren comments, "Calves can stand cold temperatures, but not drafts. Worst of all are damp, dripping barns that are death traps for calves." The Skellies don't let manure build up in the calf pens, cleaning them often and regularly.

Their calthood health program actually starts even before a calf is born. Mrs. Skellie comments, "We think healthy cows are necessary for healthy calves." There have been 23 cows in the herd over the last nine years that have produced more than 100,000 pounds of milk in a lifetime . . . evidence of bovine longevity.

Whether developing a "green thumb" in the garden, or an enviable record of calf raising, there's no substitute for hard work and responsible attention. The Skellies put a lot of themselves into the job of raising healthy herd replacements and salable heifers . . . and their success is directly proportional to their effort. —G.L.C.

TRIPLE-TUBE COOLER

"The temperature of our milk drops from about 100 degrees to 33 degrees in the time it takes to move it from the cow to the tank." Speaking is Leslie ("Bud") Gilbert, whose 400-acre dairy farm straddles the Chenango-Cortland line just a few miles south of its juncture with Madison County. Bud's farm has been in the family since 1821 when one of the earlier Gilberts emigrated there from his home in Gilbertsville, New York.

When a fire totally destroyed Bud's stanchion barn a couple of years ago, he replaced it with a 100-cow free-stall with double-six herringbone parlor. One of the unique features of the new installation is the milk cooling system he installed. Called a "triple-tube cooler," the system utilizes three sequentially-sized stainless steel pipes, arranged one within another in such fashion that ice water can be pumped along both sides of a thin column of milk.

The ice water, flowing through the core and the outside jacket of the triple tube, is able to remove the heat from the milk . . . which is pumped through the "in-between" tube . . . in only the time it takes to move it through its thirty feet of length. Ice water for the system is provided by a 300-gallon ice tank powered by a 5-hp compressor.

As the milk leaves this 3-inch triple tube (outside diameter), it enters a 2,000-gallon holding tank where it remains until the pickup tanker arrives. The holding tank is bulkheaded from the milk room into the utility area where the compressor, pump and ice tank are located.

"Only a small section of the holding tank has a cooling jacket," explained Bud. "It's only needed to pre-cool the tank. When the tank's empty, we turn the ice water on

about 15 minutes before milking time. The entire system is cleaned in place." A thermograph at the outlet-end of the tank monitors both milk temperature and the temperature of the discharging wash water.

I asked Bud why he chose this kind of cooling equipment. "There were several reasons," he replied. "For one thing, our serviceman convinced us it was a superior way to cool milk. We're lucky to have a good crew of servicemen here, and I have a lot of regard for their experience and know-how. In times past, we've needed service promptly . . . and we've gotten it.

"Also, with the ice-bank system, we can use the compressor heat more efficiently. It's given off throughout the day. With direct-expansion, you need 2 to 3 times more compressor capacity, but it's only running 1/3 as long . . . so you get heat peaks twice a day. We like to avoid this because we use the heat to warm our utility area and calf quarters. Our calf room has a dutch door, and a ventilator fan draws the heat from the utility room into it.

"Another reason," continued Bud, "is that I've gone through the experience of outgrowing a tank. Right now, with our present herd, we've got plenty of capacity. But in case the time ever comes when we need more, the manufacturer tells me they can prefabricate an extension, cut off the end of the holding tank and weld in the new piece . . . all between milkings.

"These were the principal reasons," added Bud. "However, if they ever start paying premiums for milk quality, a man may be able to make his decisions on other points."

Cost

How about the cost of a triple-tube system? "One 2,000-gallon unit is about equal in price to two 1,000-gallon bulk tanks of the regular kind," reports Bud. "We have more investment in cooler and tank . . . but less investment in compressors, so we come out about the same. Drop to 1,500-gallon capacity and the price tilts in favor of conventional bulk cooling."

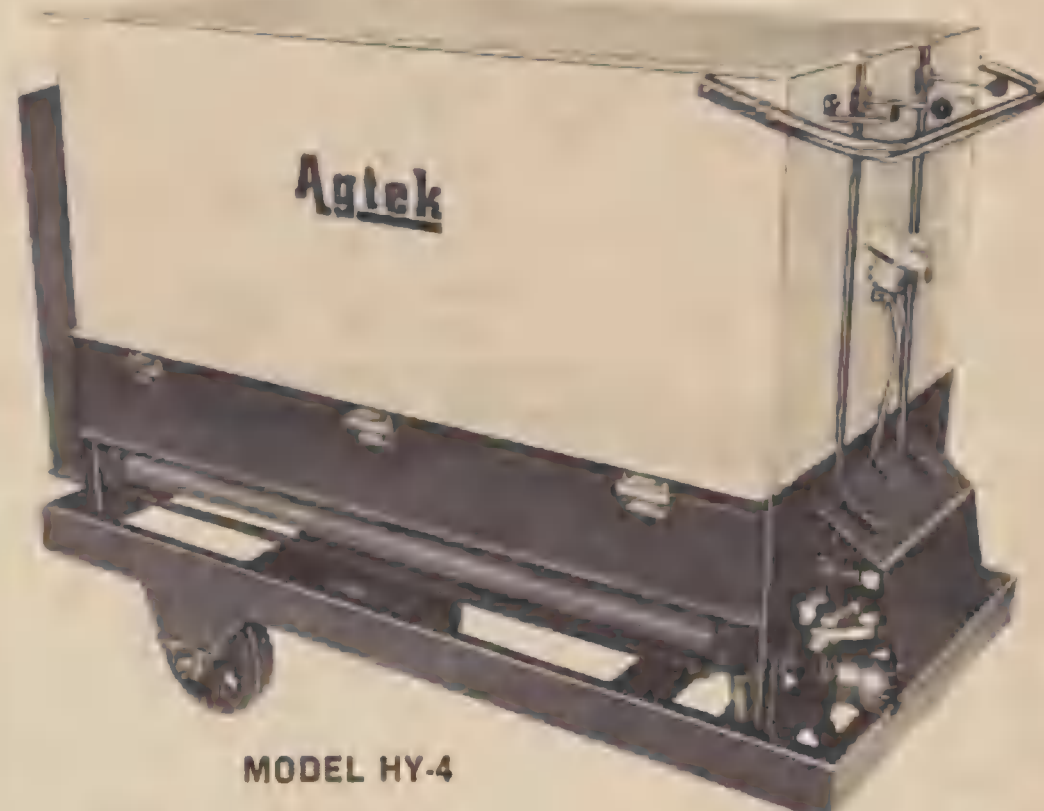
Bud Gilbert has some advice for dairymen considering triple-tube cooling. "They should be aware that they may have visits by inspectors of all kinds. We had people here from six different milk companies, from milk cooperatives, and from both the State Health Department and the U.S. Public Health Service. It was an educational experience which I enjoyed . . . but not everyone might! I guess it goes with any new kind of system 'til it becomes more common," continued Bud.

Bud also has some tips for dairymen who experience a barn fire. "Take your time to rebuild," counsels Bud. "Typically, you want to get going . . . to start pouring concrete. But you should take time to look around at other systems. Extension agent Al Voss was on the scene early, and he advised me to do just that!"

Bud also had some kind words for his neighbors. "One of them loaned me a barn, another one gave up some of his best pasture, a third gave me twelve acres of hay, still another lent me a bulk tank. They're nice people here!"—Bill Quinn

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WANT TO SELL YOUR FARM?



by William Rawlings

WHEN the time comes to sell your property, you should see your lawyer before taking any further steps. He can solve problems before they are created, and advise you on the most advantageous way to sell. He may also refer you to an accountant to discuss the impact of the sale on your income. His advice can help you obtain the best price and the easiest sale possible. In this instance, "best price" means the greater amount in your pocket, rather than in the tax coffers.

Ask your lawyer to recommend three competent appraisers to set a realistic market value for your property. If possible, get the Federal Land Bank, as well as a local bank, to do the appraisal. Through the appraisal, you know what price to ask, and you also have an idea where the mortgage . . . if one is needed . . . can be placed.

Estimate

Remember that any appraisal is an estimate, but the more qualified the man who does it, the better it will be. You might be able to sell the property for more than the appraisal indicates, but then you may have a problem placing the mortgage.

We once sold a farm for \$20,000. No bank was willing to value it at more than \$10,000, the buyer could not raise the difference in cash, and the sale was cancelled. The owner might have held the mortgage himself and obtained the full price, but he needed cash then and there, so he either had to wait for someone to come along with a huge down payment or find some individual to hold the mortgage and give him the cash.

Luck held, and a buyer with intentions of turning the farm into a housing development arrived with sufficient money to pay the full price and no mortgage was necessary. This case was an exception to the general rule: get your appraisal first.

Fix Up

Once you have decided on a price and on the best method of selling, the one that allows you to retain a decent portion of the sales price . . . you should begin to clean up and paint up, particularly if you are selling a farm or rural property. Physical attraction has sold more real estate than any other reason. Everyone likes clean, well-mowed, well-painted property.

Of course, if you are willing to accept a much lower price than the

true value. leave those ten junk cars on the front lawn. Don't wash the windows or paint the barn. Let the grass stand hay-field high in the front yard. Then see how this "turns on" your buyers. After you have watched several of them drive away with the familiar "we'll let you know," perhaps the message will come through.

The neighborhood also has a bearing on the value of your property. A district where all the places are well-kept makes a mighty favorable impression on a buyer. We used to feel that zoning was never an answer to anything, since it did infringe on the rights of an individual to live as he wished. When the effects of non-zoning hit you in the pocket-book, however, you change your mind.

Shacktown

Some time ago, we showed a large farm . . . a good farm, too . . . to a Long Island buyer looking for a retirement home. His comment as we drove through the district was, "What is this, Shacktown?" The banks didn't make that comment, but their valuation of the farm was several thousand dollars lower than it might have been had the neighborhood made a better appearance.

After your property is in tip-top condition, advertising should begin. Let everyone possible know that you want to sell, including neighbors (sometimes they have a relative looking), friends, and those with whom you do business. Place your ads . . . the AMERICAN AGRICULTURIST, your local newspaper, the nearby Penny-saver . . . try them all.

Be sure to include the size of the farm or lot, the price, what type buildings (if any), and your phone number. Most publications have someone who will help write the ad for you if you wish. Their experience is invaluable, so take advantage of it whenever possible.

Property has a tendency to sell itself. Prospective buyers know about what they want, and it is doubtful if what you say, other than an honest answer to a question, will influence them as much as what their eye sees. If the price is right, and in line with current market values, you should have a sale.

When the buyer says "I'll take it," contact your lawyer for an immediate (if possible) appointment to draw up the agreement of sale. This should include the final details, such as the exact time and day of

(Continued on next page)

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possession, how the final payment is to be made (when and where, too), what is included in the sale (i.e., does the hay in the barn go with the place? What about the crops already planted? Do the drapes go with the house or not?), and other minute details.

Be sure to obtain an adequate deposit at the moment you sign the agreement of sale. And spell out just what happens if the buyer backs out of the deal. You might reject several other buyers in the meantime and lose them, so the purpose of the agreement is protection.

Understanding

Be sure everything is well understood by all concerned. One of our sales came to naught because the buyer insisted that the clothes poles in the back yard were to stay, and the seller took them with him when he left.

In another case, hay in the barn had been sold at auction. The buyer wanted to put his hay in the barn, but couldn't because the old hay was there and the man who had bought it had no storage space. The ill-feeling this situation generated was more costly than the value of the hay itself.

A 600-acre woodlot was being cut over when we sold it. The agreement read that nothing less than six inches (DBH) would be cut, and the contractor had two months to complete the cutting and removal of all pulp. Bad weather struck and the machinery couldn't get into the woods. The buyer noted that no provision had been made for this, and when the two-month period ended, no lumberman was allowed into the woods. In this case, the agreement of sale did protect the buyer, even though the pulp man did not like it.

Survey

Is a survey necessary? In some cases, yes. If at all possible, try to avoid the cost. Surveyors are expensive, hard to find, and many prefer not to survey a farm or woodlot. You can project the cost on the basis that the average survey of a building lot runs approximately \$100; most lots are no more than a half-acre in size (100x200 feet).

Should you sell your property yourself? You might want to weigh several factors before you decide. You can save from six to ten percent of the selling price, which is the

usual real estate commission. This seems high until you realize how long it takes to show a farm, get all the details of the sale wrapped up, and keep both buyer and seller happy . . . plus the fact that the realtor has the overhead of an office to maintain.

Many people go to a real estate broker before they purchase, since they feel he will have several properties to show, rather than just one. Banks do try to cooperate with brokers, because the broker will probably place several mortgages with them through the course of time, while the individual places no more than five in his lifetime. A good broker can defend his appraisal, and explain the reasons for the price being asked.

Save Time

A broker can also save much of your time. Some folks are natural-born lookers, but have neither intent nor ability to purchase. An experienced broker can weed out these people, since time is his stock in trade and he cannot afford to drive them through the countryside just for diversion.

The story is told about a Yankee salesman who had shown the properties he had listed and was back in his office with the young couple. "Now you've taken up half my day," he said. "You've seen everything we have for sale. Do you want to buy or don't you? If you do, let's put down a good deposit. If you don't, there's the door. There's another office down the street. What are you going to do?" It must have been a successful technique . . . he was a leading salesman for a national company for many years.

If you have the time and the right disposition, there are advantages to being your own salesman. You know the property better than anyone else. You know the comfort of the house on a cold winter evening, the beauty of the fields and the productivity of the land. Not all brokers know farm property, nor what interests the buyer of rural land.

Imperative

In some cases, it is almost imperative that you use a broker. For example, if you live in New Jersey . . . and the property for sale is along the St. Lawrence River in northern New York . . . a few trips back and forth will cost as much or more than the broker's fee.

Or maybe you just don't have time to spare to show the place. Perhaps you aren't a warm, friendly person, and you don't like to show the farm to someone else. Then there's little choice . . . get a broker and let him do the work.

Remember the steps: 1) lawyer 2) appraiser 3) clean up 4) advertising 5) sales and sales agreement. Your lawyer will be your right hand, drawing up a new deed, bringing the title and tax search up to date, and bringing all to a harmonious closing.

Get the best lawyer you can, trust him, and bear in mind that good advice is sometimes expensive. You pay him for what he knows and to insure that he looks after your best interests. As a general rule, you'll save more than enough to pay the attorney several times over.



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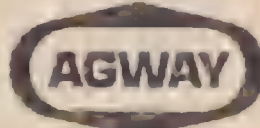
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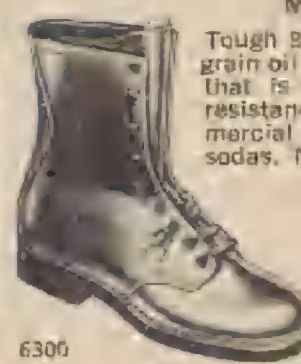
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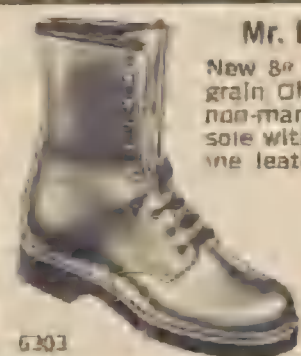
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What's NEW in the FIELD



by Bill Pardee

FALL-CUT HAY

WILAT a summer! Freezes, floods, too cold, too hot, and rain, rain, rain! Old man weather put it all together to give us the toughest hay-making season most of us can remember. Farmers putting up hay-crop silage made out best, but everybody had trouble making hay. And most of our corn, late planted and held back by early cold, still needs weeks of warmth to ripen normally. Both factors point to shortages of feed in the Northeast this coming winter.

And feed quality won't be up to snuff either. Most first-cut hay was over-mature and rained on, and corn silage is likely to be short on grain. Surplus hay supplies aren't available from nearby regions either, as poor hay weather hit from Virginia through Canada.

So this is the year to get the most out of what forage you have. One temptation will be to cut hay during the fall whenever there's growth to cut.

Can Cut

And you can still cut or chop alfalfa this fall without hurting stands, if you follow certain guidelines. Professor Bob Seaney, forage specialist at Cornell, summing up his recent research results, notes that you can take a third cut (for some it will be a second) in September or early October without hurting stands if:

1. Your field is well drained.
2. You permit 6-7 weeks' regrowth between the last cut and the previous cut taken in July or August.
3. You're growing a variety that's resistant to bacterial wilt (Saranac and Iroquois are, Narragansett is not).
4. You fertilize well and topdress with potassium.
5. You cut on the high side to leave stubble to catch snow.

Following these rules, Seaney has found no significant effect from fall cutting on stands or yields in subsequent years.

Similar results are being reported by forage specialists Dr. Mike Tesar at Michigan State, and Dr. Bob Fulkerson at Ontario Agricultural College in Ontario, Canada.

Important

Most important is that interval between the last cut and the one preceeding it. Seaney says this should be at least 6-7 weeks to permit alfalfa to stow away plentiful root reserves for late fall growth and overwintering.

Many farmers have noted similar experience over the past several years. With dry Augusts and early September rain, we've had good fall growth for the past several years and many farmers have gone out and got it. Most have noted no yield drop the following year. If stands

were hurt, it was generally due to low fertility, wet feet, snow blowing off due to lack of stubble or too short an interval between previous cuts.

So if you've been worried about the so-called "critical" time period we used to talk about, warning against cutting 4-6 weeks before frost, don't. This was good information once, with old-time wilt-susceptible varieties and lower fertility levels, but newer conditions now prevail.

One tip, if you do cut a field in September or October, don't make this the first field you cut the following spring. Let it go along to June 10 or 15 and give the stand an extra chance to strengthen itself.

Topdress

And don't forget the potassium topdressing. If wet fields kept you from putting it on after earlier cuttings, be sure to apply potassium as soon as you can this fall. Potassium plays a key role in winter survival, and is needed most where you're applying extra stress.

Try to get on 40-60 pounds of potassium per acre if your soil tests medium for this element, 80-120 if it tests low. Alfalfa picks up potassium readily through September, and even early October if it's still warm, and it'll help your stand get through the winter.

If you're short on regrowth time from the previous cut, or if other factors keep you from harvesting until after freeze-up, you can take off a cut in late October or November. Here again, be sure you've had 6-7 weeks' regrowth, then cut high. A tall stubble will help hold snow, insulating crowns against both severe temperatures and heaving. But before cutting this late growth, take a careful look to be sure it's worth taking. Late fall growth is often pretty stubby and may serve you better as a snow catcher.

HIGH-MOISTURE GRAIN

High-moisture grain corn is bound to be plentiful this year unless we have an amazingly long and warm fall. Organic acids will be available and can help many. Check last month's info in this column for a discussion on this.

Regular high-moisture grain corn and ground ear corn can also make good feed if stored in airtight silos, either steel or concrete. Best time to harvest high-moisture grain is when kernel moisture is between 24 and 32 percent, with 26-28 percent ideal. The cob is wetter, so if that's added, the same corn as ground ear corn will run 30-34 percent.

At these levels, you'll get lowest field losses, need less equipment horsepower than with higher mois-

tures, yet have enough moisture to get preservation in the silo. In sealed or airtight silos, you can safely go a touch drier, down to 22-percent moisture.

Feeding

Plan to feed out high-moisture corn regularly each day or you'll get surface spoilage. Feed off at least one inch per day during winter. In summer, spoilage moves faster . . . so plan to feed 2 inches of ground material or 3 inches of unground shelled corn per day. Start feeding as soon as you're through filling.

High-moisture corn also spoils fast once out of the silo, so plan to feed it within a few hours. Give livestock only what they'll clean up because any left in the bunk will mold.

High-moisture corn can be a good buy if it's priced right. And it can be a good way to market corn for growers equipped to move it without spoilage. Whether you're buying or selling, be sure to figure the dry-grain equivalent so that you can know how much the corn is worth.

If a ton of 15.5-percent-moisture shelled grain is worth \$50, then a ton of high-moisture grain at 30-percent moisture should be valued around \$41.45 . . . and a ton of ground ear corn at the same moisture should hit pretty close to \$35.35 to equal out dollars for the feed value contained. Agricultural engineers and economists in each state have developed conversion tables, available at your county extension offices, to help calculate the relative feed value of your grain at various moisture contents over a range of grain prices.

Of course, tables or no, corn is still worth only what you can get for it (or get it for, depending on where you sit). Even so, these tables can give you a point to dicker around and let you know when a good deal is offered.

WHEAT PLANTING

Wheat planting time is here, and there's special interest in this crop for acres that weren't planted last spring, or where crops failed. Here are a few tips on wheat as a crop, as well as on varieties and seed.

Wheat can be profitable, providing growers get good yields, sell or make profitable use of the straw and take advantage of government payments. This means sticking with allotments and other regulations for this year's crop. At this writing these

are still taking shape, so check with your county ASCS people for details on this year's program.

Best-bet varieties for New York this fall include Yorkstar and Arrow . . . the latter a stiff-strawed newcomer that stands much better than Yorkstar and has higher test weight. Arrow yields better than older varieties and within a bushel or two of Yorkstar, unless Yorkstar lodges. Then Arrow shoots ahead.

In Pennsylvania, top varieties are Blueboy, short and stiff-strawed, and Pennoll and Redcoat, older favorites.

Certified Seed

The longer I work with seed and crop varieties, the more I'm impressed with the value of good seed and how often this is missed. It's particularly important with wheat, where severe sprouting before harvest, and high humidity and heat during storage, can all sap seed vitality. Genetic identity is also important, as we move rapidly to superior new varieties like Arrow and Yorkstar in New York and Blueboy farther South. And far too many homegrown seeds contain noxious weeds of all sorts.

Certified seed procedures are set up specifically to help you identify and choose good seed of top varieties, and to assure you that the seed you plant meets rigorous standards for quality and for genetic purity. Blue tag certified seed is always a good buy, whether it's wheat or barley for planting this fall, or oats or forages for next spring.

TRITICALES AGAIN

Questions keep coming in on triticales, a hybrid crop developed from wheat (*Triticum*) and rye (*Secale*). Breeding work so far has been focused in Mexico and western Canada.

Early reports have made big claims for this new crop, suggesting big yields of high-protein grain per acre. This is likely so in western conditions, but sure hasn't shown up yet for us in New York!

We've tried several of the likelier varieties now for a couple of years with little success. These have either winter-killed beyond repair, or grown too tall and lodged. It's an interesting crop, but won't help us in the East, except as a curiosity, until plant breeders can spruce up its winter tolerance, and shorten its straw by about two feet.



When the corn pickers start this fall, there is likely to be lots of high-moisture corn. Bill Pardee provides pointers in the accompanying article.



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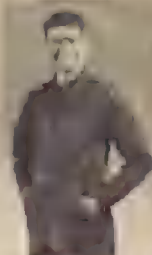
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Dollar Guide



BEEF PRICES will stay high. Demand booming ... per capita consumption up from 56 pounds in 1951 to 115 pounds now. Biologically impossible to expand beef production overnight ... takes 32 months from conception to meat counter. World supply is also tight in relation to growing demand, so massive increase of imports of foreign beef into U.S. not likely.

Strong cattle prices appear certain for year ahead. Removal of growth-stimulating DES from cattle feed (on Jan. 1, 1973) will add upward pressure on price as industry adjusts to less efficient weight gains.

MILK PROMOTION deduction of 5 cents per cwt. has been approved by majority of producers shipping to Chicago Regional and Indiana Federal milk marketing order areas. Deductions start Oct. 1.

CARMELIZED SILAGE which has turned brown or black, and has a tobacco-like aroma, is usually highly palatable to cows. Protein is rendered less digestible in process, though (can easily be 1/2 to 3/4 protein loss).

Recommendations of college specialists ... ensile at 55-60 percent moisture to prevent problem ... if it has already occurred, raise protein levels of grain fed to compensate for forage-protein loss.

RENTING LAND in Northeast is common practice. Annual rent charge of 10 to 12 percent of market value is good thumb rule for most farm units. If bare land, then 8 percent of market value is realistic.

U.S. MILK PRODUCTION during first half of 1972 was up two percent above year earlier. Whole milk sales during April down almost three percent from same months in 1971.

YANKEE MILK is now one of milk cooperative "big" on Northeast scene ... with nearly 6,000 members in six New England states and eastern counties of New York.

FEDERAL LAND BANKS can now lend up to 85 percent of appraised value of farm real estate, and can also make non-farm rural housing loans.

EVIK is herbicide just registered for use as potato-vine killer prior to harvest. Gives complete vine and weed kill in 10-17 days.

QUACKGRASS control can be started this fall. Apply atrazine at 2 to 3 pounds per acre at least 5 days before fall plowing ... then follow up with 1 to 2 pounds of atrazine (plus oil) next spring. It'll really knock the quack out of grass!

U.S. AGRICULTURAL EXPORTS hit all-time high of \$9 billion in fiscal year 1971-72.

NEED FOR LIME still underrated by many farmers. Each pound of most nitrogen fertilizers takes an average of two pounds of limestone out of action ... so lime is needed to neutralize acidity of fertilizer.

Fall is good time to apply lime.

UNITED DAIRY INDUSTRY ASSOCIATION ... involving American Dairy Association (ADA), National Dairy Council (NDC), and Dairy Research, Inc. (DRINC) ... has budgeted \$31 million for dairy advertising, promotion and research for 1973. This is an increase of 27 percent over 1972.

FLOOD DAMAGE to farms may at least be tax deductible. Obtain a copy of "Tax Information on Disasters, Casualty Losses, and Thefts" (Publication 547, revised July, 1972), available at offices of the Internal Revenue Service. Be prepared with specific information ... and pictures, if possible ... to support your claim of loss.



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Food For The Spirit



by Robert L. Clingan

In our time, we have become most conscious of a gap between the generations. Perhaps it is because our older generation had its values formed by a generation before.

Suddenly we see an emerging generation of young people whose way of life seems quite different, and whose values are at variance with the previous generation. We see a generation whose lives have been shaped by television, who have

received more of the kind of education that shapes their lives from the electronic tube than from their teachers in the public school.

Change

Many of these young people lack a respect for all human institutions . . . the government, the military, the schools, the church, and in some instances, marriage and the family as they have known it. Theirs is the first generation to have lived its entire life under the threat of nuclear annihilation. Its members are experimenting with new life styles because they do not believe in the validity of the life styles of the generation before them.

Relevant to this generation gap is this one of the Ten Command-

ments: "Honor your father and mother, that your days may be long in the land which the Lord your God has given you." Maybe the reason we see so many young people on the road today is because they have ceased to honor their parents, and have either lost or given up their hold and their position in the land God has given them.

Respect

We who still have our parents must give them honor and respect, whether we are in our fifties, our thirties, twenties, or our teens. They deserve our respect. They faced odds of their own time and kind, and survived.

We do not always have to agree with them, or submit to their some-

times unreasonable demands, but we can and must honor and respect them. They have lived their lives well, for the most part, and should be able to finish their course knowing they have the love and respect of their children and their children's children.

If parents are to be honored by succeeding generations, however, they must do their part to deserve and win that respect. This comes through the quality of their living, and the inner motivations and sense of integrity that shape their lives.

It also comes through making it clear that they honor, respect and care for the younger people in their families . . . even if they do not appreciate the life styles and values by which young people may be choosing to live. The older generation must have an open mind and tolerance about the younger, and about the changing world with which young people must come to terms and help reshape.

Chief Justice Oliver Wendell Holmes had this capacity to reach across the span of age and time. He once said to his granddaughter Sarah, when she was in her teens and he in his eighties, "I will not keep anything from you because you are too young. You must not keep anything from me because I am too old."

The Ten Commandments say, "Honor your parents." All generations must learn to treat one another with honor and respect.

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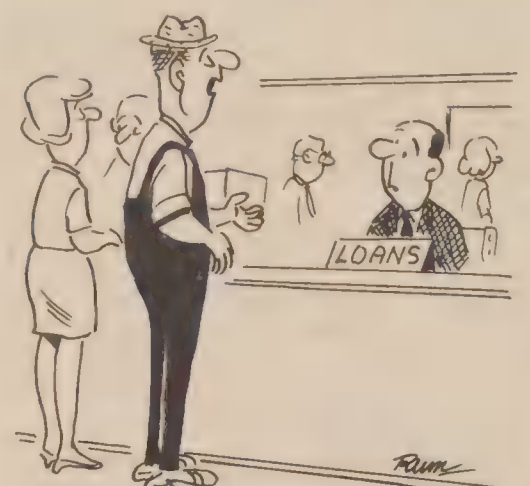
THIRD GENERATION

by Beulah Smith

I've seen him touch a piece of wood
With reverence and care
Then sand it down until it was
A silken thing, and rare.
And once he made a little shack
And straight and sure it grew
Until the careful line of roof
Lay plumb against the blue.
The joints fit, the nails run straight
In every thing he makes;
It is not just the patience,
It is the love he takes.

My father was a carpenter,
And, oh, I think it's fine
To see his good New England hands
Upon this son of mine.

Soil surveys prepared by the Soil Conservation Service are important tools for community planning boards, engineers, lawyers and builders. These surveys interpret basic soil water and geologic features, and can detect areas unsuitable for home building.

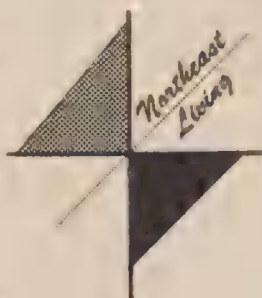


"You misunderstood me. I said I wanted to make a payment on my loan. I didn't say I was going to."

Delicious Frozen Desserts

by Alberta Shackelton

Make-ahead desserts are always such a help to the cook when serving her family or guests. Refrigerator and freezer recipes are popular for this reason, as well as for being tops in good eating. We hope you will enjoy using the recipes below which include some tips for making the spectacular but easier-than-you-think Baked Alaska.



CHOCOLATE DESSERT (Refrigerator or Frozen)

- 1 large package semi-sweet chocolate pieces
- 1 tablespoon sugar
- 4 egg yolks, well beaten
- 1 teaspoon vanilla
- 1/4 teaspoon salt
- 4 egg whites, beaten stiff with 1 tablespoon sugar
- 2 cups heavy cream, whipped
- 1 small or 1/2 large angel food cake, broken in pieces
- 1/2 cup toasted, blanched almond slivers

Melt chocolate and sugar over hot water and stir until smooth. Stir in beaten egg yolks until slightly thickened. Cool.

Arrange half of cake pieces in a shallow pan (about 13x8 inches). Fold whipped cream, beaten egg whites and nuts into chocolate mixture. Pour half of the mixture over cake pieces in pan. Add another layer of cake pieces and remainder of chocolate mixture. Chill before serving or place in freezer for future use.

Cut in squares to serve, topping each with a dollop of whipped cream and maraschino cherry set in 2 or 3 mint leaves. Serves about 12.

TOASTED COCONUT FROZEN DESSERT

- 1 package toasted coconut frosting mix or
- 1 package regular white frosting mix and
- 3/4 cup toasted coconut
- 2 cups heavy cream
- 1 can (9 oz.) crushed pineapple, drained
- 1 large banana, sliced
- 1 can (11 oz.) mandarin oranges, drained
- 1/2 cup halved maraschino cherries
- 1/2 cup chopped dates
- 1/2 cup chopped pecans
- 2 tablespoons lemon juice

Combine coconut or plain frosting mix with toasted coconut and cream. Chill. Beat together until soft peaks form. Fold in remaining ingredients. Pour in two refrigerator trays or a

9-inch square pan. Freeze until firm. Cut in squares to serve and garnish with drained mandarin segments. Serves 9 to 12.

MARGUERITE'S STRAWBERRY FREEZE

- 1 cup flour
- 1/4 cup light brown sugar
- 1/2 cup chopped nuts
- 1/2 cup softened butter
- 1 10-oz. package frozen strawberries, partially thawed
- 2 egg whites
- 3/4 cup sugar
- 2 tablespoons lemon juice
- 1 small package Cool Whip

Combine flour, sugar, nuts and softened butter and mix well with fork or fingers. Spread on a cookie sheet and place in a moderate oven (350°) for 10 to 20 minutes, stirring occasionally until slightly crispy. Break up into fine to medium crumbs and cool.

Arrange two-thirds of the crumbs over bottom of an oblong pan (13x8 1/2"). Combine partially thawed berries, sugar, egg whites and lemon juice and beat until very fluffy. Fold in Cool Whip. Tint to desired pink shade.

Spread mixture evenly over crumbs in pan. Sprinkle remaining crumbs evenly over top. Cover pan tightly with foil and freeze. Cut in squares (about 12) to serve and top with whipped cream.

FROZEN LEMON PIE

- 3/4 cup evaporated milk
- 3 egg yolks
- 1 tablespoon grated lemon rind
- 1/2 cup lemon juice
- 1/4 cup sugar
- 3 egg whites
- 1/4 cup sugar
- 1/2 cup Graham cracker crumbs

Place milk in bowl in which it can be whipped and put in refrigerator freezing compartment just until ice crystals form around edge.

Beat egg yolks, add lemon rind, lemon juice and 1/4 cup sugar. Cook over low heat until thick, stirring constantly. Cool. Beat egg whites until soft peaks form; continue beating and gradually add 1/4 cup sugar. Fold the beaten whites into the cold cooked yolk mixture.

Whip milk at highest speed until stiff and fold into lemon-egg mixture. Pour lemon mixture into a wax paper-lined ice cube tray or regular dessert tray which has been sprinkled with half of the cracker crumbs; sprinkle top with rest of crumbs. Freeze until firm. To serve, cut



Photo: General Mills

This Toasted Coconut Frozen Dessert will melt in your mouth, and it can be made well ahead of serving time.

across tray diagonally to make 6 pie-shaped pieces.

MERINGUE LAYERS MELBA

- 6 egg whites
- 2 cups sugar
- 1 tablespoon vanilla
- 1 tablespoon vinegar
- 3 small packages frozen raspberries, thawed
- 2 tablespoons cornstarch
- 1/2 cup currant jelly
- 1 quart vanilla ice cream

Beat egg whites until stiff but not dry. Gradually beat in the sugar, adding last half cup alternately with vinegar and vanilla. Continue to beat until stiff and glossy.

Mark two 9-inch circles on heavy brown paper cut to fit a cookie sheet (moisten back so paper will adhere to pan). Divide meringue mixture between the two circles, smoothing one circle over the top and making a swirling design on the second one.

Bake in a slow oven (275°-300°) about 60 minutes. Turn off heat and allow meringue to remain in oven 20 minutes longer. Remove carefully from paper.

Soften ice cream slightly, stir in 1 package of berries, press into a foil-lined 9-inch layer cake pan and return to freezer.

For Melba Sauce, drain berries from the remaining two packages. Combine juice with cornstarch, boil a couple of minutes until thickened and stir in currant jelly. Cool slightly and stir in raspberries.

To assemble, place flat-topped meringue on plate, top with frozen layer of ice cream, then with swirl-top meringue layer. Cover and return to freezer. Cut in wedges to serve with Melba Sauce to 12 people.

Baked Alaska

As a base for Baked Alaskas, you may use chilled cake slices or layers at least 3/4 inch thick and 1 inch wider on all sides than the ice cream, chilled dessert shells or slices of jelly roll, baked pie or tart shells. Ice cream mounds or bricks, slices, balls or patties must be firmly frozen to prevent melting in oven.

Be sure to preheat oven to 500°, so the meringue will brown evenly in 3 to 5 minutes. Quickly cover ice cream evenly with the meringue, being sure to put plenty of it around

the edge where cake and ice cream meet to form a tight seal.

Alaskas need not be a last minute dessert. Make a half hour to an hour or a few days ahead of serving time (meringue included) and return to freezer. At serving time, whisk into the preheated oven to lightly brown the meringue; then serve immediately.

BAKED ALASKA

- 1 9-inch round layer yellow or sponge cake
- 1 quart pistachio ice cream
- 1 1/2 pints red raspberry sherbet
- 5 egg whites
- 10 tablespoons sugar
- 1/4 teaspoon cream tartar

To mold ice cream, stir to soften slightly and pack into bottom of foil-lined round 8-inch cake pan; smooth over top. Pack over it a smooth layer of the sherbet; cover with foil or wax paper and freeze firm.

To assemble cake for meringue, place chilled cake on paper or foil-covered cookie sheet or on wooden cutting board. Remove paper or foil from top of frozen ice cream; remove from pan, take off paper, and invert on cake layer. Put back in freezer while preparing meringue.

Beat egg whites until foamy, add cream tartar and beat until soft peaks form. Slowly beat in sugar and beat until stiff and glossy. With a spatula, quickly spread meringue over entire surface of ice cream and cake, right down to paper; should be at least 1 inch thick.

Return to freezer and about 15 minutes before serving, bake in a preheated 500° oven until delicately browned. Remove from oven and then onto serving plate with pancake turners; cut and serve immediately.

For a higher Alaska, use a full layer each of ice cream and sherbet. To make a still higher dome-shaped Alaska, mold the ice cream and sherbet in a mixing bowl, 7 or 8 inches in diameter, instead of flat cake pan. Put pistachio ice cream on bottom and up around sides of bowl and sherbet in the center. A chocolate or cake-like brownie layer makes a good base for an Alaska, with your choice of two ice creams or an ice cream and a sherbet.



An aerial view of Sydney with Harbor Bridge in the foreground.

Come on along...

How would you like to spend five weeks in Paradise this winter, away from the snow and cold, icy blasts of our North-eastern winter? You can do just that by joining our **South Pacific Paradise Holiday** from **January 31 to March 7**. You will see the main tourist spots, as well as other beautiful places seldom visited by strangers. Here are just a few highlights of this once-in-a-lifetime vacation.



Our group gathers in Los Angeles, and we board a south-bound Pan American jet. The first four days in Paradise are spent in **Papeete**, capital of French Polynesia, and on the island of **Tahiti**, with a side trip to lovely **Moorea**. We'll enjoy a Tahitian feast on a white sand beach, at the edge of a blue lagoon.

New Zealand's North Island comes next. Here we'll visit Auckland, the world-famous Glow Worm Grotto, Tongariro National Park and the resort district of Rotorua. We'll also see the geyser basin, the Agrodome with a wide variety of top New Zealand sheep and cattle, and spend an evening with the Maoris featuring native songs and dances.

Our visit to **Australia** starts at Brisbane, with a tour of the famous Gold Coast and Surfers' Paradise. We also see our first Koala bears and a fascinating bird sanctuary. We continue to Sydney, Canberra with its impressive government buildings, and Melbourne, principal city of Victoria.

Back to **New Zealand**, the **South Island** this time, land of New Zealand's "Alps." We'll explore the quaint city of Christchurch, make an excursion into the fjord district at Milford Sound, and travel the road through the beautiful Eglington

and Hollyford Valleys, one of the most scenic in the world. A stop at Queenstown completes our visit to New Zealand.

We continue our journey in Paradise, with **Fiji** being the next highlight. We'll tour the south coast visiting native villages and stopping to shop in Suva, long known to steamship travelers as the shopping center of the Pacific. We'll also visit the fascinating Fiji Museum.

A Rare Treat

Seldom on the tourist route, the **Kingdom of Tonga** is the last Polynesian kingdom and rightly named, the Friendly Islands. Its carefully preserved traditions are still revered by song, dance and ceremony, defying awareness of the 20th Century. The Tongans are well known for their tapa cloth, and you'll see the famed flying foxes which may be hunted only by members of the Royal Family.

Western Samoa is our next stop, and this is a unique retreat from the urban world. The Samoans have kept to themselves and maintained the culture and customs of ancient Polynesia. Years ago Robert Louis Stevenson sojourned here, also James Michener in more recent years.

Pago Pago, capital of American Samoa is the last place visited. While we can see the western influence, Samoan customs and friendly service also prevail here. All too soon, we'll be flying north toward Chicago, and then home, but with enough exciting memories to last us a lifetime.

Cape and Islands Cruise

We hope you are planning to come along with other AA readers and friends when we enjoy exclusive use of the MV New Shoreham from **October 23 to 28**. We'll see cobblestone streets, cozy harbors, fishing villages unchanged since whaling

(Continued on page 45)

Visiting

with Home Editor Augusta Chapman

Summer issues of A.A. are always smaller than those published other months of the year, so I have not had a chance to visit with you for a while. I hope you all had a nice summer and enjoyed the picnics, short trips and vacations, and all the other things that make this a fun season. To me, it seemed very short.

All winter I look forward to spring, summer and camping, but our Ithaca-type weather was not very favorable for outdoor living this year. The "Think Snow" signs often seen on automobiles only make me shiver, but if someone were to start a "Think Camping" movement, I'd be first in line to get stickers! We did spend some time in our favorite spot at Robert H. Treman State Park, driving to work from there.

As I write this, Walt and I are looking forward to going on our A.A. Alaska Tour in August. We'll miss vacationing in our trailer, but are thrilled with the opportunity to see our 49th State. I'll tell you about it when we get back.

Grandma Goes Hiking

Probably the highlight of our summer so far was a hiking trip in New Hampshire's White Mountains over

happy not to be the only "gal."

Walt and I had climbed Mt. Washington twice before, the last time in 1966, so I had some idea what I was getting into. Both of those hikes, however, were shorter climbs, starting at the Cog Railway Base Station; also, I didn't have to carry a pack or hike for three days.

A Perfect Day

The six of us drove to Pinkham Notch Headquarters Camp on Saturday and stayed there that night. We originally had planned to go on to Madison Spring Hut on Sunday, but it was already full when we made our reservations. So Sunday we took a six-mile circle hike on the Imp Trail and spent that night at Pinkham also.

Sunday was the most perfect day I have ever seen in the White Mountains. It was clear as a bell all day long, with the buildings on the summit of Mt. Washington and tops of the other peaks plainly visible. We ate lunch on what is called the "Imp Face," and the view was worth every foot of the climb, especially since the hard part was over and we were going downhill!

Monday morning was cloudy as we started up Mt. Washington. We



Lake of the Clouds and the Hut, taken the morning of July 4, as we started down Mt. Washington.

the July 4th weekend. The idea started when our pastor thought the high school-age young people in our church would enjoy such an outing. Immediately, Walt volunteered to go along!

Things seesawed back and forth for several weeks, with the teenagers deciding to go and then backing out. When we finally were ready to make reservations in the Appalachian Mountain Club huts, there were only two fellows left. The expedition would have been scrapped, I'm sure, if Pastor Huth and Walt hadn't wanted to go so badly!

When it was thought that girls would be going too, the search started for a woman to go along. No one was foolish enough to agree. Finally, against my better judgment (and because I hated to stay home alone for four days), I weakened. Then we persuaded our daughter Judy to join the group, and I was

used Old Jackson Road and the Nelson Craig Trail and finally came out above timber line, where we stopped for lunch.

Soon after we ate, it began to rain and get foggy. We'd read many warnings of how dangerous a storm can be above timber line, even in summer. So when our trail crossed the auto road just above the five-mile point, the men decided it was safer to follow the road to the Summit. It was farther to walk, but there was no danger of losing our way.

It was a wise decision, for as we plodded along, the rain came down harder and harder and was almost sleet by the time we reached the Summit House. Also, it was so foggy that we could see only a few feet in front of us, and the wind blew a gale. Weather reports the next morning said 64 mph winds, but I really believe gusts were stronger than

(Continued on page 45)

Gordon Conklin, Editor
Box 370-T
Ithaca, New York 14850

Please send me without obligation on my part, the following tour itineraries:

Fall Foliage Tour _____ Cape and Islands Cruise _____ Reunion Weekend _____
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GARDEN TALK

by Doc and Katy Abraham

Lime Vegetable Garden

Now that the gardening season is coming to a close, you may want to give some thought to liming your ground. Liming is a job many gardeners forget to do, while many others overdo it. One State College test showed that among hundreds of soil samples, one third needed lime, one third were just right, and one third had too much lime.



A simple lime test won't do a bit of harm. Most fruits and vegetables are happy with a slightly acid soil, so if your garden is slightly acid, don't fret.

Here's what lime can do for an acid soil — reduce soil acidity, supply calcium and magnesium, speed the decay of organic matter and the liberation of nitrogen. It also increases the efficiency of plant foods such as phosphorus, which otherwise might be unavailable to your crops. Lime promotes the growth of legumes (beans, peas, clover, etc.) and helps control certain diseases, such as blackleg of cabbage.

Wood ashes are a good source of lime, but the material most commonly used by gardeners for liming lawns and garden plots is ground limestone (calcium carbonate). It is a grayish, gritty, very finely ground lime rock. An application of 50 pounds of lime per 1,000 square feet is a good rough-and-ready treatment where lime has not been applied during the past four years. Then for regular treatments, use 25 to 30 pounds per 1,000 square feet every four years.

It's not a good idea to mix lime and fertilizer in a single application, as lime may cause a loss of nitrogen and reduction in available phosphate. We like to add lime in the fall, so fall rains and snow can work it into the soil.

Corn and Coons

Are the raccoons after your corn again? We've had a lot of tips on thwarting the coons, and we'll mention them here. One reader writes, "When sweet corn is blooming and has been properly pollinated, we use old socks for protecting the ears. Just slip a sock over each ear, being careful not to break it off. This cheats not only raccoons, but blue jays, blackbirds, starlings, ground hogs, squirrels and other pests as well. It works 100 percent for us."

Another AA reader writes, "Raccoons have different tastes in different states! We place a platform feeder on a tree, away from the vegetable garden, and fill it with all kinds of goodies — frozen raw fish scraps, stale toast spread with bacon grease, cold oatmeal, anything sugary and 'fragrant.' We do this at 11:00 p.m. and find it protects our vegetable crops. Lights do not work (as mentioned by one of your AA readers); they only help the coons to see better."

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Another reader writes, "I was overrun with animals in our corn patch until I put pinwheels on each fence post. Set them in various positions, so the breeze hits them at different times. It works fine!"

Still another gardener writes, "Don't think I believe in witchcraft, but I use rope to keep out raccoons. Measure off a length of rope (about clothesline weight) long enough to surround your corn patch. Soak this rope in creosote wood preservative for two days. Use an old metal dishpan or other large pan for this."

"Remove the rope from the creosote and let it dry until all liquid is evaporated. Then put metal or wooden stakes about 18 inches high at intervals around your corn patch. String the creosoted rope on each stake so it's 12 to 15 inches off the ground and all around the patch."

Use Bleach Jugs

Many gardeners find good uses for those plastic bleach jugs. Some cut them into strips and use them for plant and garden labels. Just cut to the width you prefer, using sharp scissors, and mark with a waterproof pen. Others use plastic jugs to make excellent bird feeders to hang in trees during winter. Leave the cap on and cut a window in side of the jug so you can add bird seed.

The jugs are also used as containers for growing shrubs and evergreens, for they never rot. The top can be cut out and used as a funnel for filling your lawn mower with oil or gasoline. I might add that it's a good idea to have some empty plastic jugs on hand just in case you want to carry drinking water or lemonade. They are unbreakable and do not clink or clatter in transit.

If you have better ideas, please tell us how you recycle your plastic laundry bleach jugs.

Freeze Tomatoes

A reader writes, "Here's a method I believe to be nearly perfect to hold color and flavor in tomatoes by freezing them. Simply pick when desired ripeness is attained, wash in cold water, and fill plastic bags (we use bread wrappers) with as many as they will hold or what you would want to use at one time."

"Immediately upon removal from the freezer, hold bags under water, and they will explode. Then you simply peel skin from the tomatoes with your fingers. Color and flavor are great!"



ON THE TIGHT SIDE

by Florence Proctor

Here's why last year's clothes are snug

According to my mate:

My laundry soap has shrunk his pants
While I have put on weight.

the right one for the job



We farmers are a handy lot ...taking care of the land, the machinery, the house and the barns. But we also know that some things must be left to the experts. People like our doctor when we're sick or our Farm Family agent when we need protection. Our Farm Family man is a real "Pro" when it comes to knowing farm needs ...he was a farmer himself like most of their agents. Back this with the company he represents and you have an unbeatable combination. If you want the right protection program for your farm, get in touch with your Farm Family man ...he's the right man for the job.



OUR NAME DESCRIBES OUR FIRST CONCERN



Vasants' wife in her kitchen after she had tidied up to have her picture taken.

As I Saw India

by Liz Houck

To "Promote Peace Through Better Understanding" is the purpose of Farmers and World Affairs, a non-profit organization formed in 1956 by Ray Newton, a Quaker and a farmer from Iowa. From the beginning, Farmers and World Affairs has had the backing of National Grange, Farm Bureau and Farmers' Union.

In today's shrinking world, Farmers and World Affairs believes in the value of promoting education and cultural links between farmers in the United States and people overseas carrying on the same occupation. My husband and I felt honored to be asked to represent the Grange in this year's Farm Leader Exchange program to India.

We spent 45 days in India visiting farmers and farming projects, such as research stations and experimental plots. India is a proud nation and justly so. She has accomplished much in many areas of agriculture, especially by improving the wheat and rice grown to feed her people.

India's Women

India's Mrs. Indira Gandhi is a great leader, but most Indian women are shackled by tradition. Man is woman's idol, and she is his slave — very similar to early days in the United States. In the living compound, the women and young children have one unit, while the husband and older boys have an area by themselves. The mother or oldest woman is the home manager, and the daughters-in-law take care of the home under her direction.

The Indian woman is shy and soft spoken, with a quiet disposition. She has beautiful brown skin, a lovely smile, and long shining black hair that is usually worn in a thick braid or bun. A group of ladies together in their colorful saris is a pretty sight.

Women do a large portion of the heavy work — weeding the wheat fields with a small hand tool, as they sit in a squatting position, and carrying water or gravel on their heads for road construction. Weeds from the wheat fields are carried home to

feed the animals. Nothing goes to waste in India.

In some villages there is a central well where the people get water for home use. One often sees a woman with a large brass pot on her head and a baby in her arms.

Under India's Community Development Program, the women attend a camp for 15 days. While there, they study projects in nutrition, child care, sewing, cooking, etc. We watched the women run the sewing machines by hand. After the 15 days, the women return to their villages and teach other women the projects they have learned.

We visited a kindergarten class that was under this Community Development Program. The children were real cute and seemed to enjoy showing us what they were learning. The country school consists of one small building. Classes are held outdoors, and both children and the teacher sit on the ground. Town and city schools are similar to ours, but not as elaborate. The students wear uniforms and look very neat.

Lived In Indian Homes

We lived with two host families while in India. First was the Patil family in the state of Maharashtra and the village of Savda. Their main crop is cotton, but they also raise wheat, grapes and bananas. Mr. Vishnu Patil has been mayor of Savda for 30 years and is very proud of his village.

This family is typically Indian. I was the only woman at the table when we ate. The daughter-in-law, with the help of the family driver and a smaller boy, served the meals. Cooking was done over a low open fire, and the women sat in a squatting position for this job. We especially enjoyed living with the Patils, since a member of their family had been in our home near Dundee, New York, a few years ago. It is always good to meet old friends again.

Our other host family was the Subbaiahs who live on their farm with their three sons. This is unusual in India. Most farmers live in the

(Continued on page 45)

the clothes line

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9053. Sunburst-darted pantsuit and dress. PRINTED PATTERN, New Misses' Sizes 8-18. Size 12 (bust 34) takes 3 $\frac{3}{4}$ yds. 45 in. 50 cents

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9411. Dress plus crocheted cape. PRINTED PATTERN, New Misses' Sizes 10-18; Half Sizes 12 $\frac{1}{2}$ -22 $\frac{1}{2}$. Cape directions. State size. . . 50 cents

9411 10-18 12 $\frac{1}{2}$ -22 $\frac{1}{2}$



4554. Zip-front dress with/without purchased belt. PRINTED PATTERN, Women's Sizes 34-48. Size 36 (bust 40), 2 $\frac{1}{8}$ yds. 45 in. . . 50 cents

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India.....

(Continued from page 44)

village, while their farms are out in the country. Mrs. Subbaiah is Danish, so we had a lively discussion of Indian, Danish and American customs. Mr. Subbaiah supervises his farm and is very proud of his cattle and of the farm itself.

We also visited the Vansants farm. Vansants is a former participant of the Farmers and World Affairs' program. I was invited to see their kitchen. His mother and I sat on a low swing while the daughter-in-law, Vansants' wife, did the cooking. I asked if we could take a picture, and she did exactly what I would do if someone wanted a picture of my kitchen. She tidied up, swept up the ashes around the fire and put pots and pans in place. Women are alike the world over.

The Farmers' Forum

In each area we visited, we were greeted by members of Farmers' Forum, which is the organization that arranges the exchange program between India and the United States, in conjunction with Farmers and World Affairs. The people of India respect the organization and Dr. Bholay, its Executive Secretary. Dr. Bholay received his Doctor's degree in the United States.

Women are active in the Farmers' Forum. They are interested in cooperatives and labor situations. They asked many questions concerning our problems and how farm organizations of the United States helped to solve them.

India is a country of great contrasts — bullock carts and modern cars, mud homes and tall buildings. It is a land of wonderful people. It was hard to say good-bye to our many new friends. Our hope and prayer is that we may have sown seeds of friendship and in a small way helped to promote peace through better understanding.

Paradise.....

(Continued from page 42)

days, quaint cottages, stately mansions and majestic cliffs, using the New Shoreham as our home.

We'll visit Block Island, Cuttyhunk Island, Menemsha Bight on the southwestern tip of Martha's Vineyard, Nantucket, Cape Cod, Oak Bluffs on the northern shore of Martha's Vineyard, and finally Naushon Island. The cruise starts and ends at Warren, Rhode Island. Make your reservations at once.

Also, it's still possible to join our Aloha Week Holiday in Hawaii from October 9 to 21. We'll visit the four main islands — Oahu, Hawaii, Maui and Kauai and enjoy Aloha Week festivities — the famous floral parade and pageants depicting the history of Polynesia and the South Pacific. Whether or not you've been to Hawaii before, come along with us this fall.

Thanksgiving in Bermuda

Don't forget Thanksgiving week on the magic island of Bermuda! We'll be at the beautiful Princess Hotel from November 19 to 24, enjoying the luxurious accommodations, gourmet food, and the many other delights of this resort complex.

American Agriculturist, September, 1972

We can sun and swim at the Pool Terrace or at the Princess Beach Club where natural coral rock formations surround a velvety-soft sand beach. We can explore the flower-lined lanes in a horse-drawn carriage or a tiny taxi.

We'll want to visit Devil's Hole, the aquarium, Lili Perfume Factory, Gun Powder Cavern, St. Peter's Church, and many other fascinating places. Another delightful day could be spent cruising the blue Bermuda waters and stopping at Treasure Island for lunch and calypso entertainment.

This is a week you'll never forget; plan now to be with us.

And be sure to set aside the weekend of October 27 to 29 to join our Get Acquainted and Reunion Mixer at Buck Hill Inn. Located in the beautiful Pocono Mountains of Pennsylvania, you'll have a fine time visiting with old and new friends, seeing the travel films and slide programs we're planning, enjoying a sightseeing tour of the area and the wonderful food and comfortable accommodations at the Inn. We'll be looking for you!

Visiting.....

(Continued from page 42)

that. Our cheap ponchos purchased for the occasion were worthless, as the wind whipped them in every direction.

How wonderful to see the Summit House emerge from the fog, and how good that cup of hot coffee tasted! But our reprieve was short-lived, for after resting a few minutes, we had to go back out in the storm and hike down the other side of the mountain to Lake of the Clouds Hut. Leaving the shelter of the building, I thought the wind would literally take me off my feet — no easy thing to do!

That last mile-and-a-half trek really worried me, but the trail was well marked with yellow arrows every few feet as well as by the cairns. Of course, by this time, it was impossible for us to get any wetter, so we just kept putting one foot ahead of the other (I did, at least) and made it without any trouble.

Drowned Rats

I've heard the old expression, "looking like a drowned rat," and that must be how the six of us appeared when we arrived at the Hut! Right then for us, happiness was getting in out of the storm, feeling the warmth of the fire burning in the barrel-stove, and changing into clothes less wet than the ones we were wearing. A very simple thing we had never thought to do was put our extra clothing in plastic bags!

The Hut crew served supper to 72 people that night — French onion soup, a delicious tossed salad, beef stew, and white cake with cherry topping — while the storm howled outside. We appreciated it all the more, realizing that everything had been backpacked down from the Summit.

The next morning it was 40 degrees at the Hut and 30 on the Summit. While we ate breakfast, the clouds blew away, and we had another beautifully clear day for going back to Pinkham Notch Headquarters.

(Continued on page 46)

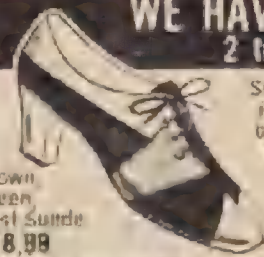
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HANDY

on the Farm

Tractor Rack — A rack on the front of this tractor is used to carry the spray barrel or weights for heavy pulling, using engine blocks. Channel irons are bolted to the tractor frame and reinforced with short ones underneath. Front ends are welded to a heavy angle cross-piece, also useful as a bumper when pushing small hog houses, feeders or loads.



Bolted — A long, heavy bolt . . . sliding in a short pipe for a keeper . . . latches this gate. The pipe is welded to a square plate which bolts to the gate. The bolt slides into a slanting hole drilled into the post.



Hose Holder — The hose to the hydraulic wagon hoist is kept from dropping to the ground and dragging, or being run over, by this combination of a broom-holder and a half-disc fastened to the wagon side board.



Quick draw — A holster for the coupling end of the wagon's hydraulic hose protects it from dragging and getting damaged or covered with dirt. A strap iron was welded across the bottom of the short piece of pipe which held the coupling. A short iron strap welded to the pipe also was bolted to the wagon box. A U-shaped piece of iron was bolted to the top of the end gate and the hose hooked over this.



Heater — This gas-fired farm shop heater was built with stovepipe and elbows mounted in a frame of flat iron, flared at the bottom for steadying it. It can be moved around in the shop, and easily stored out of the way when not needed. The gas torch is mounted in the end of the lower pipe and connected by hose to bottled gas or other supply.



Scrap Trap — Handles on the steel drum used for a farm shop trash barrel make it easy to shift around and empty. The shop is cleaner and safer when scrap metal, broken glass, etc., are placed in the barrel and not dropped on the floor or allowed to accumulate around the work area.



Reddy Holder — This extension cord holder has a receptacle with two outlets for an electric drill or other equipment a distance from the shop. A disc blade welded to a pipe makes the stand. A hand ring is welded to the top of the pipe. The receptacle, welded on the post, has the long, heavy-duty extension cord attached. When not in use, the cord is wrapped around two hooks as a bracket.

Visiting . . .

(Continued from page 45)

We had planned to take the Tuckerman Ravine Trail down the mountain, but were afraid it might have washed considerably in the storm. We settled for the Boott Spur Trail, which is supposed to be less steep than Tuckerman. It was the rockiest "path" I could imagine, and we pounded from one boulder to another all the way down. If Tuckerman is more rugged, guess I don't want to hike it!

AMC Hospitality

I can't praise the college students who staff the Appalachian Mountain Club Huts too highly! They are friendly and polite; meals are served family style, and everything we had tasted wonderful; the bunk rooms are kept clean and well equipped. How thankful I was that my 18-pound pack didn't have to include food for three days and a sleeping bag!

Looking back on the experience after being home three weeks, I admit a certain feeling of accomplishment and some satisfaction that I made it! But just how soon Grandma will go hiking again remains to be seen.



Lot Divider — The barnlot or feeding floor can be partitioned into temporary lots to separate cows by using lightweight chains plus load binders as gates. Long stretches have the chains joined by vertical ones to reduce spreading. A well pipe casing is located in the center of the lot so chains attached to it can make several smaller lots. The load binders are hooked into the pairs of loops welded to the post.



Recessed — A recessed frame in the wall of the shop or garage covered by a peg board is a handy place to hang grease guns, wrenches and

other tools. They are out of the way in a building used for working on machinery, but readily available.



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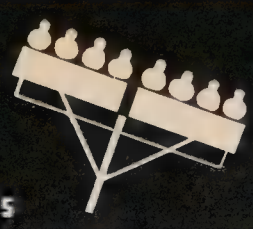
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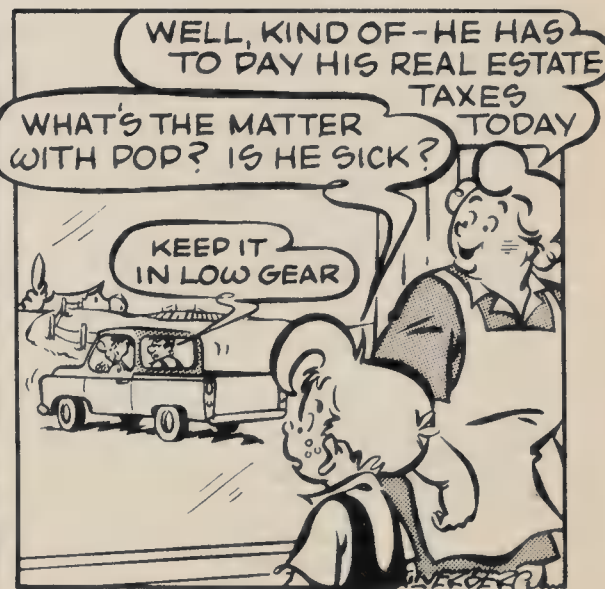
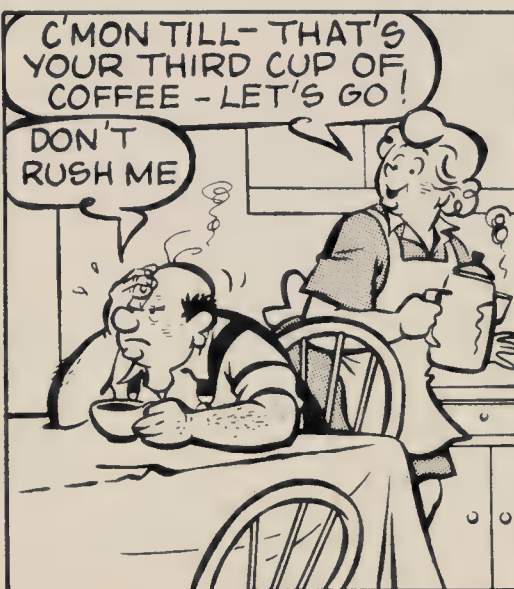
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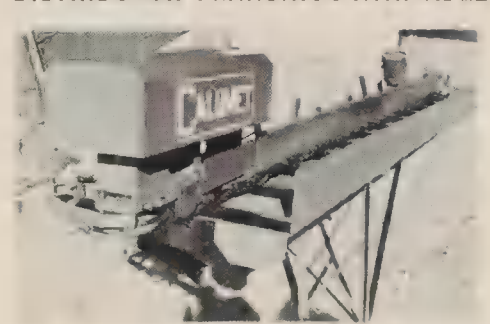
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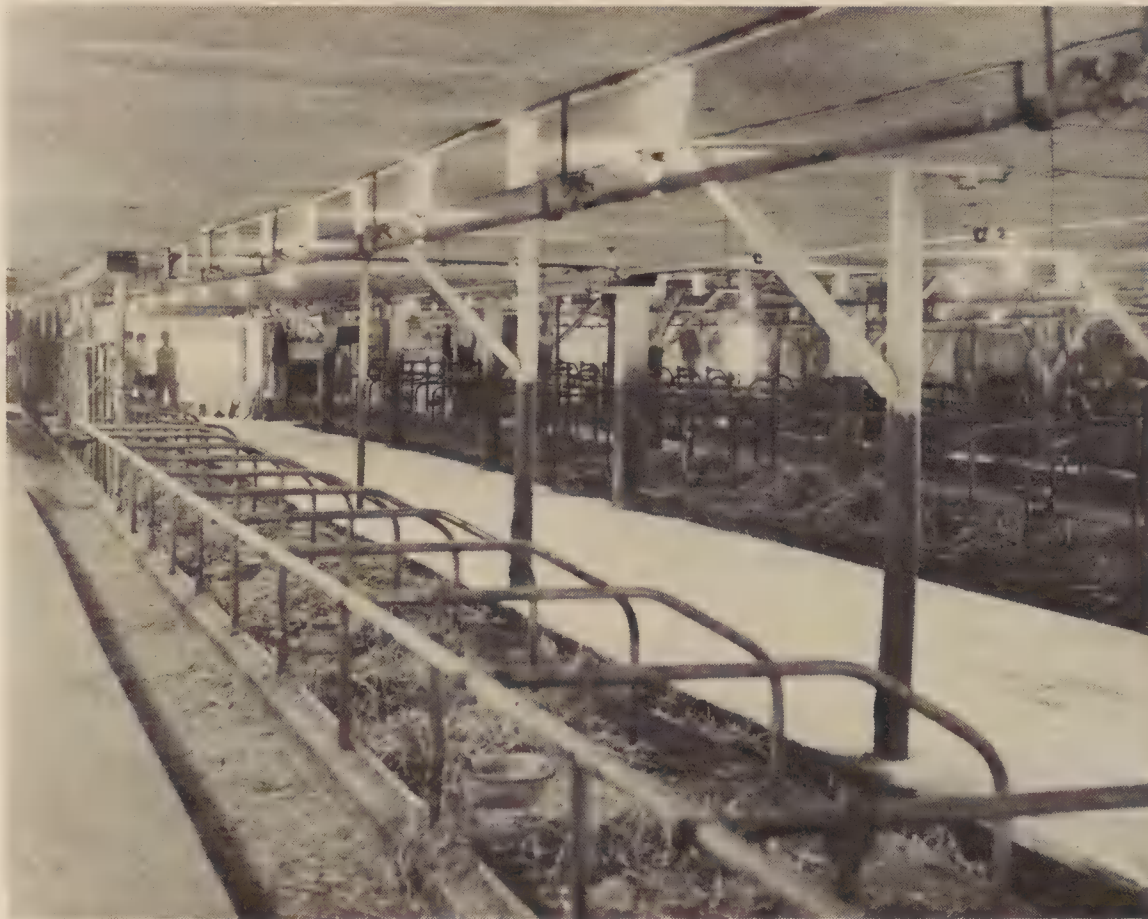
cut is not a perfect 45-degree angle, the two ends will butt together with no discernible gap when joined for permanent nailing.

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ALMOND PASTE MACARON Recipes - \$2.00. Write Macaroons, 2002 Devon, Colorado Springs, Colo. 80909.

MONEY IN DONUTS - make new greaseless donuts in kitchen. Sell stores. Free recipes. Duncan Ray, Waseca, Minn. 56093.

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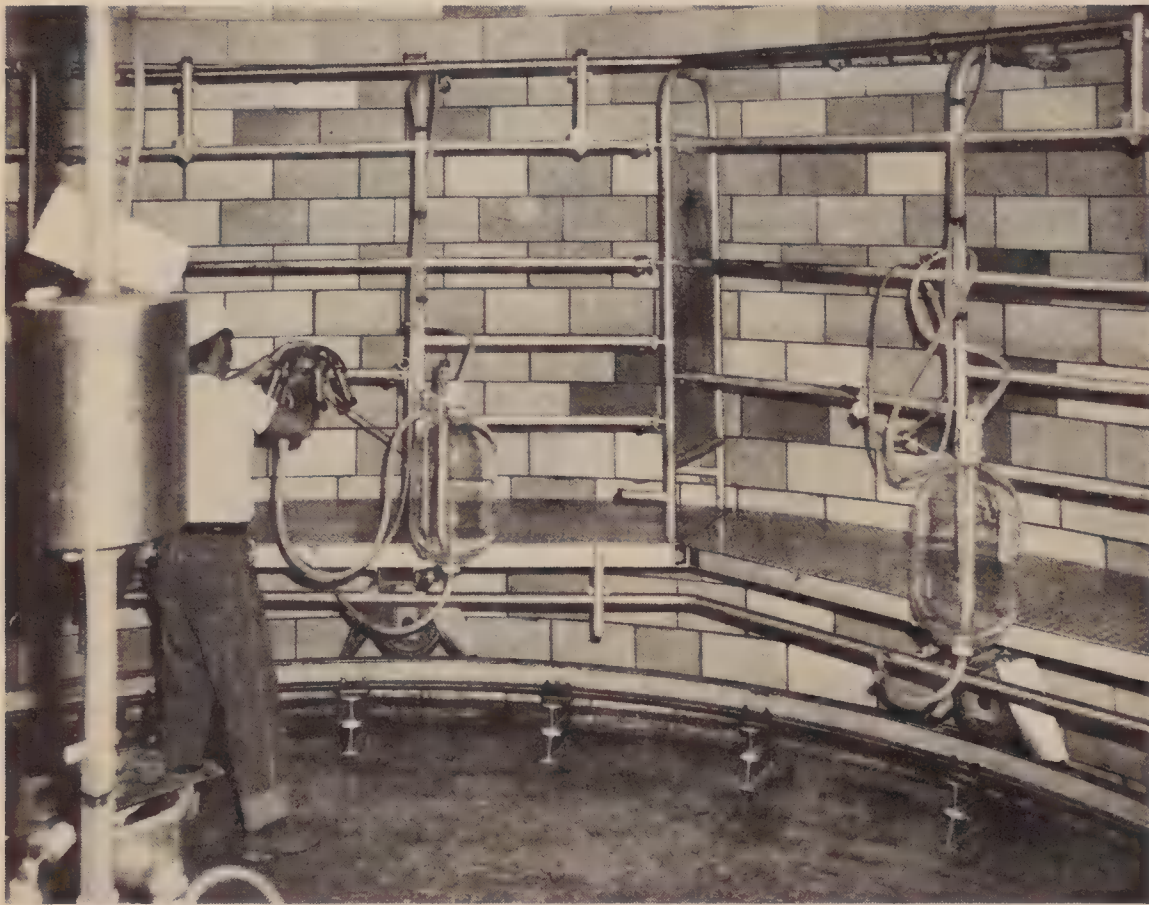
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Northeast FARM EXPERIENCE



Michael Blesy begins setting up the parlor in preparation for milking.

PARLOR IN THE ROUND

Michael and Ellen Blesy (rhymes with daisy), who farm on the Hinman Hollow Road at the edge of the hamlet of Maples (Cattaraugus County), New York, are the proud owners of the first round milking parlor in the State. Mike started milking cows there last May 17, and likes it fine.

Its walls are lined inside with ceramic tile . . . of several colors. "We got 'em as seconds out of Erie, Pennsylvania," Mike comments. "Apparently, there are blocks left over after some orders are shipped out, and the company will sell 'em for lower than usual rates."

Mike and employee Greg Widger are both involved in milking at present . . . Mike in the pit, and Greg moving cows into the parlor. However, a future addition will be a squeeze gate that will allow one man to milk the 70 to 75 cows by himself. Mike figures that 70-75 cows per man per hour is the labor efficiency figure applicable to the milking setup.

There are eight stalls on the Dari-Kool Bou-Matic Carousel, and eight milker units. No grain is fed in the parlor. "Grain feeding creates more waste materials to dispose of in the parlor," Mike reports, "and spilled grain is especially hard on the disposal system." There is a 14,000-gallon tank . . . and accompanying dry well . . . that handle waste from the milking complex. Soil is a porous gravel, and Mike expects to have no problem if he pumps the tank at reasonable intervals.

"It's been interesting to us that cows seldom leave droppings in the parlor," Mike comments. "Maybe it's because they're only there for 6-7 minutes each milking." Slow milkers can go around twice, though, because there is plenty of flexibility in the control system.

A contractor built the parlor, with only a minimum of help provided by the Blesys. The total cost was \$30,000 . . . including building and equipment.

The Blesys use a complex ration for the herd . . . mixed in a "Little Augie" mixer wagon. The ration is fed twice a day. It is formulated by combining 2,800 pounds of corn silage, 500 pounds of a 24-percent-protein grain, 150 pounds soybean oil meal, 400 of high-moisture corn, and 25 pounds of urea. Cows also have free access to hay, but eat relatively small amounts of it. There are 200 acres of corn on the farm in 1972 for home-grown feed.

"Spectators tell me that cows should go up and down on a merry-go-round," chuckles Mike. "But I just like to see 'em go up . . . in production, that is. We turned out 1,200,000 pounds of milk in 1971." —G.L.C.

RETAIL EGG BUSINESS

On November 7, 1970 I sold all my laying hens, after fifteen years in the egg business. I started in 1955 with 50 laying hens, and sold one dozen a week over our home use. By 1970, I was selling 140 dozen a week, and couldn't supply the demand for good, fresh eggs. My retirement was accelerated by my age, the cost of upkeep, and inflation.

At times, I had six hundred birds in my hen house (18'x95') without being overcrowded; generally, 300-400 layers and 100-200 pullets. In the spring, I would purchase 200 day-old sex-link chicks of the red variety, and in the fall, get another 100. I would also dispose of my older hens in the fall after the second laying season. In this manner, my egg supply was kept nearly uniform the year 'round.

Washed

Each day, the eggs were gathered in regular gathering baskets, then at the end of the day they were washed. The washer was made by removing the agitator of an old clothes washer. The proper amounts of warm water and egg-washing compound were added, a basket of

eggs in place, and, by using the pump, the water circulated over them.

After a few minutes, the basket was removed, placed in the sink, rinsed off, and set aside for the night to dry off. The next morning the eggs were candled, weighed, and put into cartons, which were placed in wooden apple boxes holding just sixteen dozen eggs.

During the warm months, the eggs were kept in the basement of the house, which always stays close to a uniform temperature of 54 degrees F.

Every seven days, I had a complete new crop of eggs; if a surplus accumulated, I would take them to the farmers' auction at Northampton, later at Whatley, Massachusetts.

Like most poultrymen, I had problems to contend with . . . such as losing baby chicks, keeping the litter dry, and blood spots in the eggs. The solution to the first mentioned (loss of chicks), I got from an old poultryman who told me to start the chicks by feeding them finely-ground corn meal (such as one finds in a grocery store) for five days, then gradually add commercial starter, increasing a little each day.

The second problem, wet litter, gave me the worst trouble for I was never able to find the proper type ventilator. By opening the windows slightly from the top, I was able to control the moisture to a certain degree.

Sweet Oats

The third problem, blood spots in the eggs, was solved partly by accident. Normally, regular feed oats were used for scratch feed, but when the grain man delivered sweet oats (oats mixed with molasses) instead of the regular oats, I found the hens thrived on it during cold weather. They would eat all but the lumps which were later broken up in feeding.

After a few weeks, I noticed that I was not getting as many blood spots in candling. At this point, I began to think back at what might have caused the change for the better. Continuing with sweet oats, I finally discontinued candling without any complaints from the customers.

The eggs were sold on a route at a price slightly lower than supermarket prices, but higher than wholesale . . . and I found the customers liked the arrangement very well. —Roger Scott, Chester, Massachusetts

GOAT MILK

Mention a New York dairy operation and everyone thinks of cows. But not on Patterson Road in Marietta, New York, high above beautiful Otisco Lake, where Miss Anna Neidhardt operates one of New York's largest dairy goat farms.

She has a herd of 45 French Alpine milking goats with about 20 head of replacement kids. But she is now putting the finishing touches on a sparkling new barn and pasteurization plant, and plans to expand her milking herd to at least 50 head.

The new 36'x50' barn is designed for 68 stalls aligned in four rows. Each stall is 28 inches wide and 3 feet long, with sides and front con-

structed of welded steel. The stall floor, which she plans to cover with indoor-outdoor carpeting, slopes slightly to the gutter cleaners at the rear.

The barn is well insulated . . . 3.5 inches in the walls, and 6 inches in the ceiling. "Warmth is a factor with goats," explains Miss Neidhardt. "Despite what some say, they just won't milk as well in cold weather."

Berghenof

At present, the milk output of Berghenof Goat Farm (the name comes from a German word meaning "high mountain") is sold to customers who travel as much as 80 miles to pick it up. Most of her customers buy the milk for health reasons . . . colitis, ulcers, allergies. Some others, she adds, are just natural-food advocates. One lady buys 120 quarts at a time; another customer drinks four quarts each day.



Anna Neidhardt and some of her goats.

Much of the production is sold as frozen milk. "Unlike cows' milk," Miss Neidhardt explains, "goat milk, if not held in a frozen state for more than six weeks, will reconstitute perfectly. It's naturally homogenized."

When the milk processing plant is completed, the milk will be bottled in quart and half-gallon plastic jugs and wholesaled both fresh and frozen to health-food stores in the Syracuse area. Goat milk commands about 50¢ per quart on the wholesale market.

Miss Neidhardt's milk plant can readily handle her herd's 100-quart daily production. It is equipped with a pasteurizer, plate cooler and bottler, as well as a freezer to store the processed supply.

Portable

The goats are milked with a portable "Clean-Easy" machine made especially for goats by the Anderson Manufacturing Company. "Goats require a lower vacuum (10 to 10.5)," explains Miss Neidhardt. "Their udders are much more sensitive than a dairy cow's."

I asked Miss Neidhardt how she got started in the business. "I've always liked goats," she replied. "The first one I bought as a pet. But when you have one goat, you invariably end up with more; they draw you like a magnet."

She has tried four different breeds and has settled on the French Alpine as being the best blend for both production and milk quality. "One of the problems," she added, "is winter milk production. Goats are seasonal breeders like sheep. They breed from about September to January . . . so, with a five month gestation, they come in from spring to early summer. I think with this

(Continued on next page)

breed, I can get a 10-month lactation and still get decent production."

A visit with Miss Neidhardt can be a fascinating short course in dairy goat management:

"Goats can be bred as young as eight to nine months if well-grown."

"It costs about 20 to 25 cents a day to feed a milking goat. The average doe will eat between four to five pounds of hay and from two to three-and-a-half pounds of grain. Too much grain will cause off-flavor milk. It gives them indigestion."

"Kid mortality is very low if you follow the rules. But kids are just as susceptible to scours as calves are. And parasites are a bigger problem. You have to follow a rigid worming schedule; they're very much like sheep. And we have just as much acetememia problems as dairymen have with cows."

"A good doe has a productive life of about 10 years, but I cull heavily... goats haven't been bred up for production like dairy cows."

"There's a market at Easter for kids... up to \$1.00 a pound on the hoof."

"Multiple births are common. Goats normally have twins; triplets are not unusual, and I've had a couple of sets of quadruplets."

"I've had goats 'peak' as high as 13 pounds of milk per day, but on the average, it's about 8 to 10 pounds."

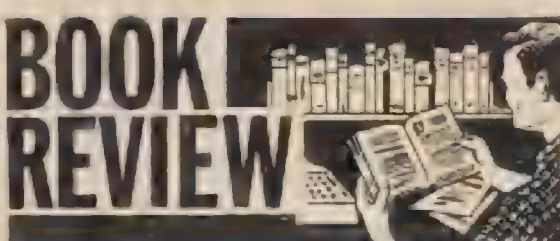
Not So

Miss Neidhardt was quick to explode some of the popular misconceptions about goats... eating tin cans, for instance. "Contrary to what most people think, goats are very fussy eaters. They won't eat hay if it's at all soiled. They like their water fresh. In fact, they prefer it warmed in the winter. And goats don't smell if they are kept clean... except for bucks that have a couple of musk glands in their head."

Miss Neidhardt forecasts a bright future for the dairy goat. "Interest in goats is climbing," she reports. "We had 200 animals entered this year in our Buck and Kid Show at the Altamont Fairgrounds. And there's some money to be made. I'm getting \$50 and up for my young purebred kids. Of course, I've purchased some does for as much as

\$200, and my big buck cost me \$400."

In this age of ecological awareness, Miss Neidhardt is keeping pace with the times. Adjacent to her new barn is a 10'x30' composting pit... made of cement block, and complete with roof. During the winter months, manure will be mechanically elevated into this pit and distributed in thin layers. To each layer a quantity of "red worms" (a type of worm which, according to Miss Neidhardt, consumes manure and excretes a soil-like composting material) will be added. She admits that it's all quite experimental, but she hopes to be able to bag the resulting material and sell it for compost. — Bill Quinn



BOOK REVIEW

HANDBOOK OF LIVESTOCK EQUIPMENT

by Elwood M. Juergenson

The aim of this book is to bring together most of the information known about equipment and facilities that have to do with efficient livestock production. Here are page after page of plans for buildings and shelters for livestock, fences and gates, chutes and corrals, hand tools for livestock, equipment for horses, cattle, sheep and swine, as well as equipment for watering, restraining, loading and transportation, and shows and exhibitions.

In most cases, enough detail is shown and enough sizes indicated that anyone handy with tools and some knowledge of construction can build the equipment directly from drawings in the book. In other cases, a credit source tells the reader where to get additional information.

Published by Interstate Publishers and Printers, and available through AMERICAN AGRICULTURIST, Book Department, P. O. Box 370, Ithaca, New York 14850. Paperbound copies, \$9.25 each, plus local sales tax.

The Song of the Lazy Farmer



Mirandy's smug as she can be because she thought she'd punish me by trading jobs so I'd find out what kitchen life is all about. She claims she works from morn 'til night to feed and keep me feeling right while

I am having lots of fun and never get much real work done. Of course, I had to argue back and keep her mind right on that track by slyly pointing out that wives have got the easiest of lives, 'til she got mad and said that I would have to stay inside and try to struggle through her awful chores while she did my work out-of-doors.

So there she goes, poor stupid thing, she thinks that I am suffering, but actually I've never had a day that made me half as glad. No dust is getting in my eyes, I've got protection from the flies, my back don't bother me a bit, if standing tires me I can sit; it surely is no strain to break an egg or mix up chocolate cake. But when Mirandy staggers in, I'll give a tired and sheepish grin and tell her that she sure was right, this housework is an awful fright; that way, perhaps, she might make me stay in tomorrow too, by gee.

American Agriculturist, September, 1972

Let's Travel Back With

JOURNEY TO DAY BEFORE YESTERDAY

by E. R. Eastman



The sales of "Journey to Day Before Yesterday" continue to be good because so many who have read it keep telling others about it. Young and old alike get a kick out of learning how their forefathers lived; and youngsters really begin to believe that Grandpa's stories "really happened."

For a copy of this nostalgic book, well-bound and illustrated, send check or money order for \$7.50 (New York State tax included) to American Agriculturist, Book Department, Box 370, Ithaca, New York 14850.

ADVERTISING As Seen By YOUR GRANDPARENTS



There are 120 pages of nostalgia crammed into this 9x12-inch soft-cover volume... a collection of pre-World War I advertisements with the various subjects accompanied by essays that will bring laughter to your voice and tears to your eyes.

The volume contains illustrated ads for whiffletrees, Maxter Trucks, washboards, Hanson's Magic Corn Salve, Madame Foy's Skirt Supporting Corsets, Sturges Milk Cans, stereopticons, and scores of other items which today exist mostly in memories and museums.

Two dollars invested now will bring you hundreds of hours of appreciation of what we have today, and provide for your children an educational experience that cannot be found in any school.

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Old Time Agriculture in the Ads @ \$2.00 ea. \$
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Gayway Farm Notes

by HAROLD HAWLEY

ADJUSTMENTS

In a year which has seen good farmers wiped out by floods . . . and the savings of a lifetime gone for many . . . it seems trivial to comment about the adjustments made by folks in our area to the wet weather. Their responses were possible because they had something left to work with, and some alternatives.

It's commonplace to see fields planted to corn, oats, or alfalfa, but obviously not planted in the lower corner, or a strip along the creek or a wet hole in the middle. We may get to put in a little grass seed in August to finish up the rest of the field we clear-seeded in late April.

With corn, the alternatives were limited. In many fields, the stand was there . . . just standing there . . . yellow, pale, grassy, unhealthy, and wishing it could somehow find some dry soil and sunshine.

A few fields that were lost earlier . . . either to actual flooding, or to water standing there long enough to drown the plants . . . were replanted. Many stayed wet so late and so long that the owners finally just wrote them off.

It seems as if the last few seasons have had one common characteristic. June and July weather favored putting hay in a silo rather than in a mow. Certainly this was another of those years which made the life of a silo salesman just a little easier.

Decision

It also was the first year we ever remember when we decided which field we would tackle next on the basis of whether we could get through! Getting a windrower stuck, or rutting up a field with the forage harvester and wagon, became easy.

Parts of some fields were left . . . either because we didn't think we could get through, or thought we would do more damage than the hay was worth. And one field was left until last simply because we didn't know how to haul the stuff out. We had planned to go across the end of a corn field to the lane. The corn field was so soft we just couldn't see how we could haul loads across it.

On the brighter side, the second cutting responded to the moisture and was as beautiful as could be.

Just as other things didn't get done as they should have, so it was with fertilizing the hay fields. We normally have fertilizer bulk-spread after the first cutting is off. The fields were so soft, and we were so sure that it would soon change, that we didn't call for any fertilizer until the regrowth was just too big.

We've always been impressed by the things that timely irrigation can do for a crop. We once heard a good irrigation farmer out in Nebraska comment that it paid to get there

with the water at the right time and it was just as important to turn it off soon enough!

Certainly, the corn showed its appreciation for sunshine and dry feet by the way it finally began to grow and get some decent color when we got that hot humid week with no rain in mid-July. Almost daily, one could hear himself say that maybe we'd still get a corn crop yet if this kept up for a little longer!

FERTILIZER

My gosh, anyone wanting to draw any conclusions about the results of different times and methods of applying fertilizer this year should be able to reach any old conclusion he wants to and find enough reasons or excuses to make a case.

We sure have given up trying to read anything from our fields so far. For one thing, at the time our anhydrous ammonia should have been applied, the fields were so wet that no machine could have stayed on top. Some three weeks later, when it was finally possible to negotiate them, the corn had suffered some from lack of nitrogen . . . or so we thought from the color. And there was no doubt of some physical damage being done both to the plant and to the root system by the chisels applying the stuff to corn so large.

In the fields where the nitrogen and other elements were plowed down (except for the pop-up application through the planter), we had to wonder how much leaching and loss we had due to the prolonged and excessive rain. Then when weed control was a variable, as it certainly was this year, it could easily cover up any differences due to fertilization practices.

For example, where we had liquid nitrogen and atrazine sprayed on at plow-down, we had weed control. Those fields, therefore, looked among the best . . . as good as when dry fertilizer was plowed down, and atrazine and 2,4-D applied post-emergence.

From there on it was anybody's guess. Where atrazine got on too late, with corn too big to use a little 2,4-D . . . or with nitrogen not yet on until the corn was way too big . . . well, I wouldn't know how to read the results.

WILL HISTORY REPEAT?

Having spent several years in mid-America, I am quite aware of the spring runoff problems sometimes encountered there. Because the streams are long, some of their feeders reaching clear to the snowfields of the Rocky Mountains, it is possible to have a long high-water period be-

cause different areas contribute their high runoff at staggered times. It is also possible to have unusual short periods of very high streams if over a large area there is a sudden big thaw or prolonged heavy rain.

So what has been done? The Army Engineers have drawn up plans to protect a town. Usually these have consisted of dikes or levees to hold the water within its banks until it gets by a town or city. Of course, a protective wall at one point intensifies the problem downstream at the next town or towns. Therefore, a new set of plans and new levees are in order. Some streams have become diked continuously from the first dike to a point where the stream merges with another.

The Mississippi and Missouri river systems are examples where dikes have been extended and heightened over the years and the end is not yet. As more and more of the feeder streams and rivers get diked, the need to raise the protection along the big rivers becomes more apparent. Also, when the dikes get 40-50 feet high, it becomes pretty obvious how really serious a break in the dike becomes. Where will it all end?

Upstream Dams

Along in here somewhere, the idea of upstream dams came into the picture. The theory was to build some dams to hold back water in these periods of big runoff. The records suggest these have been a mixed blessing.

First of all, they inundated valuable bottom land. Secondly, they developed the nasty habit of silting in, thus requiring constant cleaning and dredging . . . or higher dams in order to still have the necessary capacity.

Once the dams were in, and the water levels stabilized (and recreational and irrigational uses developed), there came to be real reluctance to turn loose any unnecessary water in the spring lest there be a shortage or a lowering of the water level later. As a consequence, all too often an unusually late rain found the dams full. Nothing is more useless than a full flood-control dam. In fact, in a few cases, the dam not only could not hold back any more water but it developed a break and contributed to the flood which swept downstream.

We've had much less experience with levees and dams here in the Northeast but enough to suggest that the experiences and mistakes of others and our own are pretty similar.

It's obvious that a lot of money will be spent to try to prevent another such catastrophe as occurred this summer. We have no secret formula to suggest. It does kind of give one pause, however, when he hears of towns rebuilt on the same sites. In many cases, the advantages of locating a town on the river . . . which caused its location in the first instance . . . no longer exist.

The dependence we come to have on the protection of dams and dikes has all too often proved unwarranted. Let's hope enough thought and study can be put into the plans for the future so that the money can be spent wisely . . . more wisely than in many cases in the past.

TRANSPORTATION

A little discussion the other night revealed that we aren't the only ones who are wondering whether enough movement of chemicals took place within fields during all the rains to make the lower ends of them unsafe for less tolerant crops next year. It's no secret that these unusual conditions could and did move some atrazine when the soil it was in got carried along down the row.

A couple of instances of crops in parts of adjoining fields being wiped out by the atrazine that was moved over there along with the silt and water should remove any doubt that it did happen. This was a rare and unusual season, to be sure, but there will be fields or parts of fields next spring which may not be safe for oats or alfalfa. A "safe" average level of application over a field (say one pound per acre) doesn't mean much if the effective final rate on the low end of a field was three or four times that amount.

It's fine to talk about going out early, getting some samples, planting in them, and letting the results of the germination and growth guide you. We did this one year with ryegrass.

Samples from last year's corn fields were taken. The ryegrass grew fine in our boxes in the back room, so we planted it in the fields.

The ryegrass grew fine in the field . . . until the roots got down a little deeper than we had sampled. There the atrazine took over and killed it.



WEED CONTROL

Weed control in corn this year is as spotty as the corn fields. Fields which were sprayed early were fine. Many got so soft that they could not be sprayed except by aircraft.

By the time fields dried out so they could be sprayed, the weeds had a running start. In fact, up and down the road there have been more grassy, weedy corn fields this year than for many years. However, perhaps partly due to the moisture and the rapidly-growing weeds, the response to some spray was quite gratifying.



HUMMINGBIRDS

All you nice people who suggested how we might attract more hummingbirds will be pleased to know that we are now able to see the little birds with fair regularity from our back windows. They come both to the feeder and to the flowers you suggested, which we planted.

Along with the roses in the back yard, which have been wonderful this summer, these little birds give us a lift every time we spot one.

American Agriculturist, September, 1972



LIGHTNING RODS

We carried a warning in our June edition about itinerant workmen who roam the countryside doing inferior work at what they term bargain prices.

We have been told that lightning rod "gypsies" have been especially active during the past few weeks. This is another reminder to beware of high-pressure transients. Make sure you know with whom you are dealing.

A reputable outfit will not object to your checking with others for whom they have done work. Sub-standard materials and workmanship are no bargains regardless of how little they cost.

REMODELING PITFALLS

"According to the old saying, 'A penny saved is a penny earned,' the reverse proved true with an experience I had recently. I didn't save a penny and the other fellow didn't really earn a penny.

"We hired a man to remodel our kitchen. This included paneling, new appliances, cupboards, counters, windows and floor covering. After he tore up the room and did part of the carpentry work, he asked for an advance so that he could purchase appliances and cupboards. He did purchase them, but he charged them to us. Before long, we received bills from the suppliers.

"The man kept giving us excuses, saying he had run into an emergency but would pay the bills within a few days. Time dragged along, and he only worked occasionally on our kitchen. The work he did was poor.

"We finally gave him his walking papers and hired an attorney to straighten out the mess. We then did what we should have done in the first place. We hired a reputable local firm to correct the faulty workmanship and complete the kitchen—but the experience cost us about \$2,000."

SERVICE BUREAU CLAIMS
RECENTLY SETTLED

NEW YORK

Mrs. William Petersen, Cornwall on Hudson (refund on back)	\$ 39.47
Mrs. Carl J. Jay, Fredonia (refund on bulbs)	4.15
Mrs. Hubert Griswold, Preble (refund on order)	81.16
Mrs. Michael Hoblock, Granville (refund on order)	12.41

PENNSYLVANIA

Mrs. John Roman, Hazleton (refund on bulbs)	11.00
Mrs. Charles M. Wolfe, Saegertown (refund on order)	31.11
Mrs. Frank Dawson, McKeesport (dog identification membership)	12.88

MAINE

Mrs. Malcolm Thompson, Augusta (refund nursery stock)	21.71
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NEW HAMPSHIRE

Mr. Vernon B. Field, Claremont (refund on policy)	103.64
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WARNING

Every year at this time, we receive a number of complaints from subscribers who have had difficulty collecting for hay sold to dealers. If you live in New York State, be sure that the buyer is licensed and bonded to do business in the state before selling him any produce. For that information, write to:

New York State Department
of Agriculture and Markets
Division of Marketing
Building 8, State Campus
Albany, New York 12226
Phone: (518) 457-4990

Be sure to get all details of your transaction in writing, and read all contracts before signing.

If you have done these things and still run into trouble, write us or the New York State Department of Agriculture and Markets.

If you live in another state, check with your State Department of Agriculture to find out whether it has similar regulations to protect farmers. The address will be your state capital.

OWNERS' MANUALS

Occasionally we are asked to help a subscriber to obtain an instruction manual for a home appliance or a piece of farm machinery. These are often difficult to locate, especially if the item is a few years old or the manufacturer has sold out to another firm or gone out of business.

We remind subscribers that a special file should be kept of all instruction sheets, manuals, warranties, and other pertinent data whenever purchases are made. Also, subscribers should be sure to obtain such manuals or instruction sheets at the time of purchase.

THE CON GAME

Confidence schemes seem to run in cycles. Currently there is a revival of the practice of trying to separate elderly persons from their savings via the bank examiner dodge.

The "con man" may call on an elderly widow, representing himself as a bank examiner who is supposedly trying to get proof against a dishonest bank teller. There are many variations, but the scheme will certainly involve drawing out a large sum of money and turning it over to the "examiner."

In any situation of this kind, the subscriber should beware. He should contact an official of the bank in question as soon as the crook has been turned down and has departed. He should describe the party (or parties) involved, provide a license plate number if possible, and pass along any other information that might be helpful in running down the party concerned.

Should the approach be made at a time when the bank is closed, the incident should be reported to the local sheriff or police agency.



Willard Gristwood of Central Square, N.Y. received \$4915.00 from local agent Charles Graham of Liverpool, N.Y. Mr. Gristwood carried a combination of policies which paid \$3375 in accidental dismemberment benefits and \$1540.00 medical expense benefits.

"I was working with my spreader when my sleeve caught in the shaft. As I stood helpless, my left arm was torn and shredded from my body. My only thought was to get help. I got on the tractor and drove from the barn to the house where my wife placed me in the pickup truck and started for the hospital. 43 days later I was released."

"I have carried North American Protection on all members of my family for years."

"I want to thank Mr. Graham for his personal attention in processing my claim."

Willard G. Gristwood

OTHER CLAIMS PAID

Mary A. Ellison, Whitesville, N.Y. Auto accident—head injury	\$ 890.45	Peter J. Angell, Stanley, N.Y. Playing football—injured knee	\$1332.41
Percy Woodford, Deposit, N.Y. Thrown from lawn mower—inj. ribs	205.70	Homer G. Gillette, Albion, N.Y. Caught in combine—inj. leg	139.40
Steven Wyllys, East Randolph, N.Y. Knocked down by cows—inj. hips	1492.84	Bertira Landphere, Mexico, N.Y. Gored by cow—injured ribs	809.50
Alan J. Slater, East Randolph, N.Y. Fell from hay mow—broke leg	1258.56	Michael Kuncik, Richfield Springs, N.Y. Slipped on steps—broke ankle	258.94
Francis N. Walters, Moravia, N.Y. Kicked by cow—broke ribs	719.93	William Mumbulo, Edmeston, N.Y. Power shaft fell—inj. thigh	287.66
Earl Neesam, Martville, N.Y. Box fell—broke toe	281.54	Lucille R. Woods, Gouverneur, N.Y. Slipped on wet floor—broke ankle	222.84
Richard Meabon, Westfield, N.Y. Fell off bike—inj. neck	345.00	Dan L. Stacy, DeKalb Junction, N.Y. Steering wheel spun—inj. arm	294.80
John D'Angelo, Jamestown, N.Y. Slipped down steps—inj. leg	920.00	Donald C. Aker, Cobleskill, N.Y. Fell off tractor—inj. arm	209.46
Everett Hubbard, Guilford, N.Y. Wagon tongue fell—broke toe	140.00	Anna Haskins, Burdette, N.Y. Slipped and hit freezer—inj. chest	1115.00
David E. McNitt, Smyrna, N.Y. Kicked by cow—internal injury	323.41	William K. Poorman, Waterloo, N.Y. Nail flew—injured eye	173.28
Paul R. LaPierre, Chazy, N.Y. Baler fell—broke foot	227.13	C. Memzo Peck, Cohocton, N.Y. Hose blew apart—burned thighs	1528.54
Lester Sweeney, Cortland, N.Y. Struck by car—injured legs	430.71	Donald K. Rice, Jr., Bath, N.Y. Motorcycle accident—broke arm	297.13
John A. Svegi, Bloomville, N.Y. Washing vats—steam burns	535.12	Henry J. Wojewocki, Riverhead, N.Y. Piece of metal in eye	1483.95
John Bartschi, Walton, N.Y. Kicked by cow—broke rib	215.90	Leon Crandall, Barton, N.Y. Lawn mower tipped over—cut hand	121.25
Nancy Hoelscher, Eden, N.Y. Farm truck acc.—cut forehead, knee	292.17	Henry W. Moesch, Owego, N.Y. Struck by bale—injured knee	203.11
Mary G. Schmitz, N. Collins, N.Y. Slipped on wet grass—inj. knee	1802.39	Willis Sears, Putnam Station, N.Y. Wrench slipped—inj. hand	186.05
Duane C. Floyd, Westport, N.Y. Fell from truck—broke elbow	493.24	Lawrence B. Goegert, Waiworth, N.Y. Running saw—cut thumb	168.30
Donald R. Perrin, Alexander, N.Y. Corn crib tipped over—inj. arm	115.00	Paul E. Porseus, Sodus Point, N.Y. Truck accident—head injuries	428.58
Mary J. Bono, Frankfort, N.Y. Fell down steps—injured knee	201.43	David Bluthardt, Arcade, N.Y. Fell off tractor—broke ankle	667.77
Lawrence Widrick, Woodville, N.Y. Caught in baler—inj. finger	119.07	George W. Linder, Nelson, Pa. Starting tractor, slipped—inj. back	1306.52
Kenneth H. Hill, Turin, N.Y. Fell on board with nail—inj. knee	774.29	Anna E. Goritz, Milford, N.J. Knocked down by dog—broke hip	1010.76
Walter Beyer, Jr., Lowville, N.Y. Kicked by cow—broke nose	801.62	Walter J. Engle, Columbus, N.J. Piece of iron fell—broke leg	305.14
Myron Smith, Munnsville, N.Y. Burned in barn fire	1184.23	John K. Brown, Northfield, Mass. Fell from ladder—broke leg	165.00
Guy H. Beam, Fort Plain, N.Y. Pushed by cow—broke ribs	285.72	Guy E. Smith, Vergennes, Vt. Riding minibike—injured knee, arm	791.01
Mabel E. Pollard, Marietta, N.Y. Auto accident—broke arm	347.80	Raymond K. Harvey, Starksboro, Vt. Tractor tipped over—inj. shoulder	372.65

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Superstar PX 446 **95-day 3-way cross**

This hybrid has become a household word on farms across the Northeast. It won first and second in Maine in the N.C.G.A. Yield Contest. Winner Ken Chambers produced 117.14 bu. per acre in the non-irrigated division.

PX 446 had the highest yield rating by far in Cornell University's state wide tests and a near perfect 9.9 standability rating out of a possible 10. Early vigor of PX 446 seedlings assures a uniform stand.

Superstar PX 525 **105-day 3-way cross**

PX 525 was again rated highest by Cornell for yield and standability. PX 525 has produced extremely high yields of grain-rich silage in New England and throughout the northeast.

The upright leaves on this big hybrid trap more light for top yields under high population planting. On a long slender ear, the kernels of PX 525 are medium hard starch, dry down fast...high test weights. The outstanding yield and standability of PX 525 should make this hybrid first choice on your farm if the maturity is right for you.

Superstar PX 50A **110-day single cross**

For the long season areas of the northeast PX 50A is a real winner. This strong leafy plant with long blocky ears has a history of top yields and extremely wide range of adaptability. In 1971, PX 50A placed first in New Jersey, 2nd in Pennsylvania and 3rd in New York in N.C.G.A. Yield Contest.

PX 50A has excellent stalk strength and is a plant that can fully utilize the growing season in areas of 2500 to 2750 growing degree days.

Recommended for silage. Try all four Superstars. Your NK dealer can help you fit hybrids to your needs. Ask him for our 16 page Corn Buyers Guide, or write to address below.

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*Northeast
Farmer*

OCTOBER 1972

American Agriculturist
and the
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American Agriculturist

and the
RURAL NEW YORKER

Vol. 169, No. 10

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OUR COVER

One of the joys of living in the Northeast is the marvelous colors of autumn. The cover picture was taken near East Orange, Vermont. Photo: Esther Henderson.



NO pins,
bolts,
rivets,
to loosen
or catch . . .



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Cornell's short, welded link, that is also welded to two inch paddles gives you one smooth surface that eliminates jamming, breakage, excess wear.

Because there are no pins, bolts, rivets, just one smooth surface, manure and urine have no crevices where corrosion can weaken and destroy chain and paddles.

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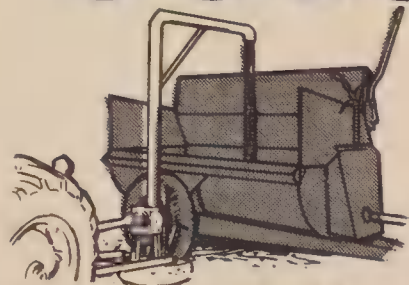
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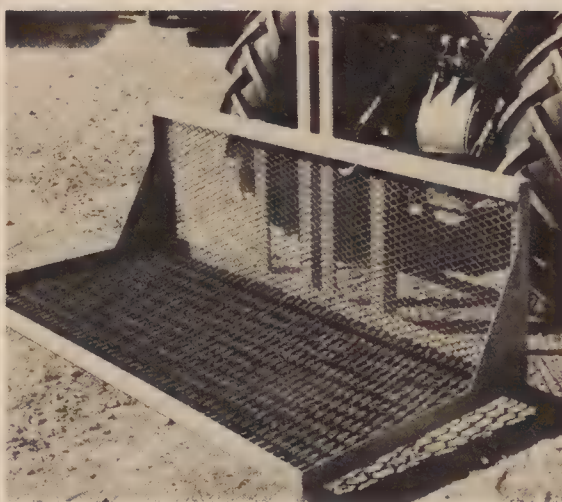
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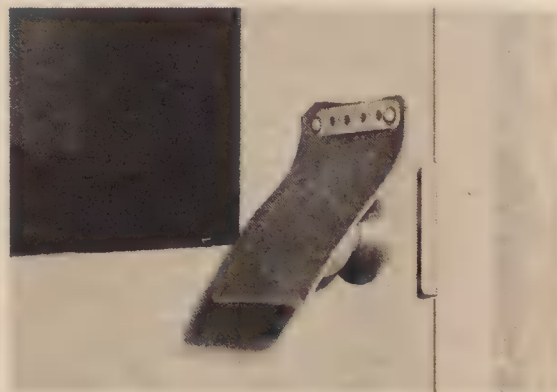


HANDY on the Farm



Toting — This tractor rear-mounted carry-all will handle bales, sacks of feed and small pieces of equipment. It is framed with heavy angle iron and covered with expanded metal. It is 34 inches wide, 2 feet high and 6 feet long. Steel-plate gussets strengthen the corners. The back, which gets the strain, is reinforced with uprights to the three-point hitch and the top and bottom rails are boxed for extra strength.

Big Flap — A flap of rubberized belting was fastened to this door above the knob to keep it from freezing in cold, rainy weather. This is especially useful for metal doors with locks in the doorknobs.



Calf Stall — Calves are kept in individual pens in a row in a shed built for that purpose. Each pen has an expanded metal floor which is on a removable frame of welded angle iron. The pen partitions are boarded tightly. A full-width manger at the end opposite the gate has a section for hay and a divided section for grain, and water and milk buckets. A neck rail keeps the calf out of the manger.

Barred Window — Bars in a welded bracket protect barn windows which might be within reach of cattle. Reinforcing rods are bent at the ends and welded to flat iron straps which are fastened to the window frames with lag screws.



Storage — The space between overhead low rafters in the farm shop was converted to storage for supplies such as bolts, with the size on a label. This shows just what is on hand, keeps them from being scattered

around the shop and mixed with trash. Several roof windows were fitted in, too, lighting the shop considerably when it is closed in bad weather or gloomy days.



American Agriculturist, October, 1972

Dates to Remember

Oct. 4 - 11th Broiler Housing Seminar, University of Delaware Substation, Georgetown, Del.

Oct. 6-8 - Fall Foliage Festival, Warner, N.H.

Oct. 9 - NYS Guernsey Sale, Pavilion, N.Y.

Oct. 11-13 - 45th Annual Convention National FFA, Municipal Auditorium, Kansas City, Mo.

Oct. 14 - Mohawk Valley Feeder Calf Sale, Westernville, N.Y.

Oct. 14-20 - Pennsylvania National Horse Show, Farm Show Building, Harrisburg, Pa.

Oct. 17-18 - 7th Annual National Meeting on Poultry Condemnations, Delmarva Convention Hall, Delmar, Md.

Oct. 17-19 - New England Greenhouse Conference, Colonial-Hilton Inn, Wakefield, Mass.

Oct. 18-21 - 51st Annual Meeting New England Holstein-Friesian Association, University of New Hampshire, Durham, N.H.

Oct. 19 - Feeder Calf Sale, Dryden, N.Y.

Oct. 23-26 - 100th Annual Meeting New York State Grange, Hotel Syracuse, Syracuse, N.Y.

Oct. 26-Nov. 4 - National Apple Week

Oct. 28 - Feeder Calf Sale, Bath, N.Y.

Oct. 31 - Feeder Calf Sale, Chatham, N.Y.

Oct. 31-Nov. 2 - Cornell University's 1972 Nutrition Conference for Feed Manufacturers, Statler-Hilton Hotel, Buffalo, N.Y.

Nov. 3 - Feeder Calf Sale, Caledonia, N.Y.

Nov. 4 - Feeder Calf Sale, Pike, N.Y.

Nov. 4 - Vermont Feeder & Club Calf Sale, sponsored by Vermont Beef Producers Association, Arnold Bay Farms, Panton, Vt.

Nov. 4 - Rockingham Craftsmen's Fair, Town Hall, Rt. 111, Kingston, N.H.

Nov. 5-9 - 57th Annual Meeting National Association of County Agricultural Agents, Marriott Motor Hotel, Atlanta, Ga.

Nov. 6 - Annual Meeting Eastern Seaboard Sheep Council, Harrisburg, Pa.

Nov. 11 - Livestock Field Day, Cornell University, Ithaca, N.Y.

Nov. 11-19 - Royal Agricultural Winter Fair, Royal Coliseum, Exhibition Park, Toronto, Can.

Nov. 13-16 - 34th Annual Pesticide Conference, Alice Statler Auditorium, Cornell University, Ithaca, N.Y. Preregistration (\$15 fee) requested with Department of Entomology, Comstock Hall, Cornell University, Ithaca, N.Y. 14850.

Nov. 13-21 - 106th Annual Session of National Grange, Hartford-Hilton Hotel, Hartford, Conn.

Nov. 14-15 - Annual Meeting Inter-State Milk Producers Cooperative, Marriott Motor Hotel, City Line Avenue, Philadelphia, Pa.

Nov. 16-17 - Annual Convention New Jersey Farm Bureau, Governor Morris Inn, Morristown, N.J.

A good feeling
of a job done well

Load big and spread fast

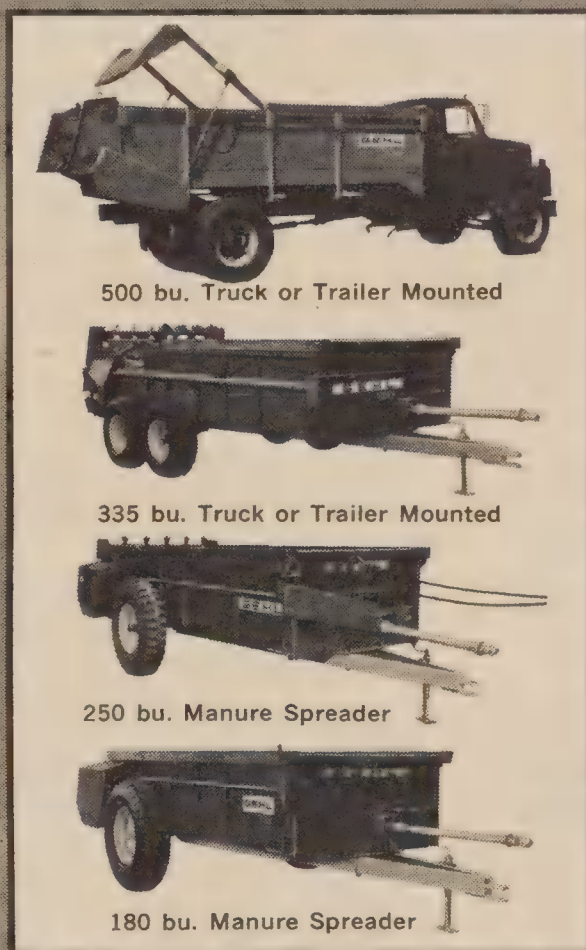
Spreading manure isn't likely to rate high on your list of favorite jobs. Hard-packed and frozen manure make it less attractive yet. So does a spreader breakdown in subzero weather. Gehl has done something about it!

With 4 Gehl spreaders to choose from—180, 250, 335 and 500 bushel capacities—you put the job behind you with fewer trips. Powerful Gehl beaters take manure—packed or frozen—slash it to bits and toss it out. Gehl Manure Spreaders are built solid of hot-rolled, corrosion-resistant steel. Beater shafts are 1½" and 2" in diameter.

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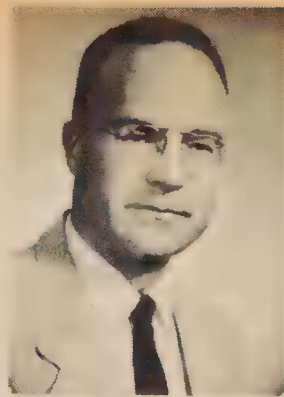
MARYLAND

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WEST BEND, WISCONSIN 53095

EDITORIALS

by GORDON CONKLIN



MONEY FOR ENVIRONMENT

Per capita taxes (state and local) in New York State rose 59 percent between 1966 and 1970 . . . up by \$242.38 during that period. The Empire State is unquestionably a leader in tax increases.

This fall, the State's voters will be asked to express themselves about an Environmental Bond issue . . . a matter involving more than one billion dollars to be spent for water cleanup, air pollution reduction, and several other environmental programs. The largest single amount is to cover the State's share of financing municipal sewage-treatment plants.

In spite of the fact that New Yorkers are as heavily squeezed taxwise as any people in the country, I'll vote in favor of the bond issue. Last year, the governor and a variety of "front" organizations tried to scare us into voting in favor of a massive highway-funding bond proposal . . . and failed. This time, though, I think it's in the long-run best interests of farmers to favor the environmental proposition . . . after all, they control more of the environment than any other group!

POPULAR COLUMN MISSING

Harold Hawley, author of the "Gayway Farm Notes" column, has been seriously ill for a number of weeks. Therefore, he has been unable to prepare material to appear in this October issue.

However, he's expected to be ready to enjoy a case of writer's cramp again before long . . . and we'll look forward to his comments in November.

THE CHOICE

Voters face a clear-cut choice in 1972 between the "left" and "right" as far as candidates are concerned. For details about the agricultural and general policy positions of Messrs. Nixon and McGovern, turn to page 60 . . . for the editor's two cents worth, read on.

If you listen carefully to . . . and believe even half of . . . all the charge and counter-charge involved in any major political campaign, you'd have to conclude that neither candidate could possibly be worthy of the job of dog-catcher! It's tough to sort out fact from prejudiced opinion . . . to evaluate each candidate objectively.

As I see it, candidate McGovern's major political asset is his promise to quickly get the U.S. completely disengaged from a terribly unpopular war in Vietnam. He also promises farmers 100 percent of parity in farm prices . . . but Presidents Eisenhower, Johnson and Nixon have been unable to achieve anywhere near that level, and the latest parity pledge rings hollow.

Several domestic policies advocated by McGovern scare most farmers . . . including fervent support of Cesar Chavez and the lettuce boycott . . . proposals to do away with the tax advantages of the capital-gains tax . . . and a proposal for sharply higher inheritance taxes. As pointed out by the National Farmers Union, however, "Senator McGovern had a 100-percent pro-Farmers Union voting record in the 92nd Congress."

Strong NFU support, plus the down-with-the-Establishment record of the Democratic national convention, makes it clear that McGovern is somewhere toward the left end of the political spectrum. Massive presidential pressure for

major changes in that direction can be expected if he is successful in his candidacy.

It's my guess that the majority of American voters are not yet ready to endorse so massive a shift in national political philosophy . . . although Ted Kennedy may pull it off someday before his political star fades. Leftward political drift seems to characterize "maturing" societies such as found in many non-communist European nations.

In spite of all the smear tactics and personal denouncements inevitably involved in presidential political battles, I remain convinced that both Mr. Nixon and Mr. McGovern are sincerely dedicated . . . each in his own way . . . to the long-run best interests of these United States. The voters will decide which political philosophy they think is best to follow, and which leader can best blaze the trails through the perilous forests of modern life.

My evaluation is that President Nixon has blazed some very important trails on the international scene . . . and shows a high level of realism on domestic issues. He doesn't have the personality to charm voters off their feet in a strictly popularity contest, but it seems to me he's performed on the job in a fashion football fans would call a "real pro."

I feel privileged to live in one of the comparatively few nations on this troubled old globe where we can exercise a choice . . . and then confidently expect both contenders to peaceably abide by the collective judgment of the electorate!

Above all, **participate** in that choice on November 7.

TRIBUTE TO ED

It has been nearly two years since Ed Eastman lay down his burdens and entered the valley of the shadow. But thousands of rural people in the Northeast remember him.

Not long ago, J. Morris Best, secretary of the Berkshire (New York) Evergreen Cemetery Association, sent me an anonymous letter addressed to Ed, and found at his headstone. It went like this:

*Tho' the way was sometimes steep and rough
And the sod you turned seemed extra tough
Now that you have hoed to the end of the row
Rest there in the quiet shade where cool breezes blow.*

*'Til we all shall meet on that great tomorrow
Where the water is sweet and there is no sorrow,
Where the fields are warm and green, and the
good grasses grow*

In a land somewhere else where soft winds blow.

A touching tribute to the memory of a great man.

SECONDS . . . AND FIRSTS

When I tell people in faraway places that I'm from New York, most of them think of what Mayor Lindsay refers to as "Fun City" . . . skyscrapers, bright lights, muggers, and all. Few realize that New York State is one of the top agricultural states in the Union, placing 16th among all the 50 states in terms of dollar-value of farm production.

The Empire State ranks second in the production of milk, apples, grapes, onions, snap beans, sour cherries, and cauliflower. It ranks first in cabbage and maple syrup production. All put together, its agricultural production amounts to a little more than a billion dollars worth annually.

CONGRATULATIONS

Amos Kirby of Mullica Hill, New Jersey, has been the New Jersey editor of the *AMERICAN AGRICULTURIST* for many years. Just recently, he received a citation on behalf of the New Jersey Agriculture Industry . . . naming him the 1972 "Food Communicator of the Year."

We join with people from the Garden State in congratulating Amos for yeoman service!

HEADQUARTERS

Coming up in 1973 is the Centennial Year of the New York State Grange. A key event in the Grange Centennial will be occupation of the organization's first central headquarters at Cortland. A campaign to raise \$400,000 to finance construction is already underway.

The Grange, as it has for generations past, continues to be a constructive organization . . . dedicated to the long-run best interests of farmers and rural non-farmers alike. A state headquarters will be an important step in strengthening the work of the Patrons of Husbandry.

UP FRONT THAT COUNTS

Time was when the cab of a railroad engine was located **behind** the boiler . . . both engineer and fireman had to crane their necks to see ahead, and rather poorly at that. After half a century of that arrangement, the engine manufacturers finally put the cab up on top and at the head of the engine, providing the engineer with a good view of the road ahead.

In a fashion similar to railroading, agriculture has had its hang-ups as far as equipment is concerned. However, many farm implements have made giant strides in terms of operator comfort and visibility. The self-propelled concept . . . combines, windrowers, choppers, balers, cotton pickers, etc . . . has put the farmer in a control area where he is on top of the action and can easily see (by looking **ahead**, not **behind**) exactly what's going on at the harvest end of the machine.

Every spring, though, I marvel at the stamina of farmers I see who are craning their necks to look back at a plow behind the tractor they're driving. How come plows remain **behind** the power unit where a man has to kink his neck for hours on end every plowing day? Why not develop plows that could be attached **ahead** of the power unit where they'd be easy to see?

Sure, you could tell me a half dozen reasons why it wouldn't work . . . undesirable compaction of plowed ground by the power unit, the inefficiency of tying up a lot of power for plowing purposes only, etc. But I'll argue that some of those reasons applied equally to other farm jobs for which up-ahead implements **have** been developed. Furthermore, my guess is that the technology exists whereby successful up-front plows **could** be developed.

How about it . . . would anyone appreciate a plow comparable in maneuverability and visibility to a self-propelled combine?

THE PASSING PARADE

While on a trip, the engine of a woman's automobile quit. Seeing a farmer working with a tractor in a nearby field, she asked him for help.

He was desperately trying to get a field of corn planted before a rain . . . a field already two weeks late in planting. Finally, he reluctantly consented to tow her a mile to a service station, but warned her he'd have to charge her \$20 for the job.

When she later told her husband about the episode, he sputtered at the fee, "That's outrageous!"

"Never mind, dear," his wife replied. "Don't make a big issue of it. He earned every nickel of it, believe me . . . I had the brakes on all the way!"



Agway Farm Enterprise Salesman Bill Moses presents monthly Agway Dairy Feeding Profile to Richard Whitcomb (left) and Leonard Germain (right).

“Total Enterprise Service helps us make more money.”

Leonard Germain, Springfield, Vt.

By some measurements, the Valley Brook Farm, located near Springfield, Vt., looks small. Only 70 tillable acres and a total herd of 100 Holsteins, including 60 milking.

But when it comes to profits, Valley Brook looks big. In fact, this farm, managed by Leonard Germain in partnership with his father-in-law, Richard Whitcomb, is more profitable than many over twice its size. Last year's lactations average was over 18,000 lbs.

“Secrets? I don't have any,” says Mr. Germain. “I just use my own ideas and other practices proven by nationally known authorities that maximize production and eliminate unnecessary labor.

“Practices like minimum tillage for corn and hay . . . a free-stall barn with milking parlor that lets one man milk the cows in 90 minutes . . . a total dairy ration that increases nutrient consumption and decreases holding time in the parlor.

“Agway Farm Enterprise Service has helped us adapt

these new practices and make them pay off. For planning and problem solving, we get advice of Agway agronomists, nutritionists and other experts whenever we need them. We also subscribe to the Agway Farm Accounting and Dairy Feeding Profiles. These computer reports are indispensable for keeping cost and performance records.

“All considered—the total package of services and products we get with Agway Farm Enterprise Service helps us manage each part of this farm carefully, helps us make more money.”

Agway Farmer-Members like Leonard Germain prove you don't have to be big to be profitable—or be big to get the help that comes with Farm Enterprise Service.

For complete details, give your local Agway a call.

Farm Enterprise Service

AGWAY

Loader speeds preparation of total dairy ration.



Valley Brook Farm in autumn.



Mr. Germain collects sample for Agway forage test.



Will you get all the value you can out of this year's forage?

Agway's new feeding concept can help you get the right nutrient balance for top milk production all winter long.



"Ratio: Right" is a new Enterprise advance in dairy feeding. It helps maintain maximum production, improve profits and protect good herd health.

"Ratio: Right" is more than a line of feeds with different protein and energy levels. Rather, it's a line of feeds in which the *ratio* of energy to protein has been carefully selected to balance the feedstuffs produced on Northeastern dairy farms.

That means you don't have to overfeed protein to meet energy requirements. Or overfeed energy to meet protein requirements. The Agway "Ratio: Right" feeds supply *only* the pro-

tein and energy that are needed to balance your forage/grain program. The result is an increase in profits.



Where does herd health come in?

Too much energy or protein not only wastes dollars, it can also result in serious herd health problems. Too much energy, for example, can result in fat animals, depressed protein utilization, lost production, ketosis and other metabolic disorders. Too much protein puts a stress on both the liver and kidneys of your animals.

The Agway "Ratio: Right" approach to feeding offers the assurance of meeting both energy and protein requirements with no wasteful overages or dangerous shortages.

"Ratio: Right" feeds are available in energy/protein ratios ranging from 0.7 to 7.3. There's one that has to be right for any forage/grain program in the Northeast—including yours.



Once you have determined the proper forage/feed balance for your herd, Agway Farm-Eze feeding system delivers it to the cows, exactly proportioned and thoroughly mixed.

New Agway Farm-Eze feeding system does the whole job—automatically. All you do is determine the ration that will give you maximum milk production over feed costs. Then adjust your Farm-Eze to deliver that ration every time you feed. After that, just press the button. Here's what happens.

Forage is accurately measured by volume as it moves under the patented forage meter. The proper amounts of grain (processed through a roller mill if desired) and supplement are automatically proportioned and

added, regardless of unloader speed. The ration is then carried to a tumbler mixer for thorough, continuous mixing. (If the amount of forage coming from the unloader varies, the mixer automatically adjusts its speed.) Finally, the complete ration is delivered to your bunk on a belt feeder—automatically. So, every time you feed, each cow gets the same predetermined ration. At the touch of a button.

And if you have installed a new Agway Farm-Eze belt feeder, you've just fed as many as 120 cows in eight minutes flat!

Agway Liquid Protein Supplement makes poor hay more palatable... and then some.

It could turn out that your forage supplies enough energy but lacks protein. Without adjustment in the ration, milk production is bound to suffer, because there simply isn't enough protein to sustain it.

The answer is simple. Agway LPS. It makes the hay more palatable. It makes up the protein deficiency. And it also supplies the proper balance of phosphorus, vitamins and trace minerals essential to health, condition and top milk production during the winter months.

LPS may be fed free-choice or top-dressed. Either way, Agway can supply the proper equipment: the wheel feeder for free-choice feeding, or the gravity feeder for top-dressing. For complete information, contact your local Agway store or Dairy Enterprise Salesman.

Turn
page
for
MORE



Some promising new hybrids that deserve a good, long look.

Agway is continually testing and evaluating new corn hybrids. During extensive trials and farm plantings, the following have shown exceptional merit. You'll probably want to test one or two of them in your own fields, next year.

Agway 393S is a new "special cross" that has shown superior standability, excellent disease-resistance and grain yields from Maine to central Pennsylvania. Large ears, well covered by deep-green husks are carried low on the stalk. Husked ears are uniform with deep kernels. Highly recommended for silage or grain. Maturity range: 90 to 100 days (silage/grain).

Pa. 4404 is a first for the East. In five years of Penn State trials, it has outyielded Pa. 444 by 29 bushels per acre at almost identical maturity. And shown better standability. Maturity range: 92 to 102 days (silage/grain).

Agway 767 was selected during the heavy blight years as a supe-

rior hybrid under stress conditions. Two years of trials and farm plantings attest to its superior grain-yielding ability and excellent standability. Maturity range: 116 to 126 days (silage/grain).

Agway 790S is a consistent performer for both silage and grain. It has an exceptionally sturdy stalk with extra-large, deep-green leaves. Yielded 192 bushels per acre in Agway's 1970 and 1971 trials. Maturity range 116 to 126 days (silage/grain).

Agway 909X has been the most outstanding long-season hybrid Agway has ever seen. Proven in four years of trials, strong stalks keep on growing after other hybrids have quit for the year. Maturity range: 125 to 135 days (silage/grain).

There are others in Agway's most exciting lineup in years. This is a good time to start choosing the ones that will do best for you.



Spreading P&K now gets you off to a fast start next spring.

It takes 200 pounds of nitrogen, 125 pounds of phosphorus and 160 pounds or more of potash

to make 25 tons of corn silage. By applying your P&K now, you free up time, labor and equipment for planting work next spring. And you take advantage of Agway's fall application discounts. A nice way to save money and get a jump on your spring field work.

Agway helps speed farm and barn clean-up.



A Yellow Devil Power Washer makes short work of cleaning jobs.

Two gallons a minute at 500 psi blasts built-up dirt and grime off walls, out of cracks, crevices and other hard-to-get-at places. A handy injector-proportioner meters liquid detergent, sanitizer, solvents etc. into sprayer stream as desired. Ideal for cleaning equipment.

Agway Farm Enterprise Service can help you increase your profits.

Call Agway any time.

AGWAY

Northeast FARM EXPERIENCE



Glenn Angell (left) visits with Extension agent Al Voss.

LINCKVIEW FARM

The figures were impressive . . . 80 cows with lactations averaging 17,900 pounds of milk . . . 638 pounds of butterfat . . . 3 cows on the last check test above 100 pounds per day . . . individual records up to 25,000 pounds . . . a ten-year herd summary averaging over 17,000 pounds of milk, and 600 pounds of butterfat per cow!

I gleaned these statistics from a quick examination of the DHIC record book belonging to Burnell and Glenn Angell. This father-and-son team, with the assistance of younger brother Ken, operates Linckview Farm in DeRuyter, New York.

Once you find a pattern of success, stick with it! Good advice, most dairymen agree. Yet, the Angells . . . whose records prove they have found the key to top production . . . are now making major changes in their feeding program. In fact, they have just erected the first silo the farm has seen in 50 years.

Hay, Hay

"Grandfather tore down the last silo in 1922," explained Glenn. "Since then, the only forage has been hay . . . all they'd eat; the best we could make. We used three hay driers . . . a five-horse and two 7½'s. We've never had to purchase any hay . . . although a few years, like in '64, it was desperately close."

I asked Glenn why they made the change. "It's almost impossible, as our herd has increased (from 46 head ten years ago), to get enough good first-cutting hay off early enough," he replied. "Last year, there were 30,000 of those little green bales going on that drier. We got sick and tired of handling them. A second reason is ease of feeding with silage."

In addition to a 20×70 Harvestore, the Angells constructed a 136'×62' pole barn with 70 free stalls and feed bunk equipped with a Brillion feeder. One end of the barn has a storage area for 500 bales of hay, flanked by a tombstone feeder.

"We started out with the idea of just the silo and feed bunk," reported Glenn. "Then we began to talk about covering the bunk for winter feeding, then came the barn. It just snowballed."

More Cows

"We expect to move up to about 110 milkers," he continued, "and some animals will be on a swing shift between the stanchion and the pole

barn. Our older cows, however, will stay full-time in the stanchions. It's kind of a vicious circle . . . you just have to have more cows to pay for the added investment!"

The new unit is designed for multiple use . . . for feeding haylage to the complete herd, for housing extra animals on the "swing shift," and for housing and feeding the dry cows and older heifers. "I like to have my heifers where I can keep tabs on them," Glenn emphasized. "They have too many problems with udders when they're away from home." The barn is also designed to permit further expansion . . . and the addition of a milking parlor, when and if desired.

The Angells own or rent about 260 crop acres. This year, their crop scorecard tallied about 185 acres of hay and 75 of oats. Although they have over 100 acres of top-notch valley land, no corn is grown! I asked Glenn why.

"We're not convinced that we can't get more milk out of good hay," he replied. "And, we hope the same holds true for haylage. What's more, we're not set up for corn. Besides, we're not land short . . . we've always had enough acreage, so the pressure isn't on."

Oats Grown

Contrary to statewide trends, the Angells are sticking with oats . . . at least for a while. "We don't get rich raising oats just for oats," commented Glenn, "but we use a lot of bedding . . . we put up 5,000 bales last year. If we had to buy it, the cost would be unbelievable! And, we're not unhappy with the oats in our grain mix," he continued. "We get a fairly good yield off our hill farm, although we don't raise them down here in the valley . . . they don't do as well."

The Linckview herd is fed a "simple" grain mix . . . a ration of home-grown oats, purchased ear corn and distillers grains. The protein level is about 14 percent . . . although some years they jack it up to 16 percent. "I feed quite a lot of grain. There was a time when not many of my cows ever got over 20 pounds of grain per cow per day. More recently, I've been topping them out at around 30 pounds."

The amount an individual cow receives is based on three things . . . production is paramount, but body condition and ability "to take it in" are also considered. "I find some cow families are better eaters than others," reports Glenn. "I have some that just inhale anything that gets near them."

"I think you have to have a feed that cows look forward to," he continued. "Take an animal that maybe has a little metabolic imbalance . . . it's easy to tip her one way or another, depending on how well she likes the feed."

Secrets

Queried on their secrets of success, the Angells credited a lot of little things. "We've been fortunate

most of the time with our breeding program," replied Glenn. "But probably the one thing that makes the biggest difference is hay quality. We push hay. We try for about 30 to 35 pounds of intake per cow per day." With their new program, about one-half the hay equivalent will be fed as haylage.

They also had words of praise for two men who had "not only helped them, but the whole area" . . . their AB technician who "does an excellent job in getting cows bred," and a 25-year-veteran DHIC supervisor, Don Evans, who in their words "has probably had more to do with the success of dairymen in this area than anyone I know."

Linckview Farm, formerly part of the Holland Land Company holdings, has been in the family since 1821, passing down from generation to generation. Registered Holsteins have been bred there since the early 1900's. Maple syrup (1,200 gallons produced last season) has provided additional income. With all the changes that this farm has seen in its 150 years, it should be easy to take the most recent one in stride!—Bill Quinn

MANURE STACKING

The Jensen Acres Dairy Farm is located on the Jennings Road near Collins (Erie County), New York. Walter Jensen owns and operates the 65-cow business.

Away back in 1949, his father, Bert, put a barn cleaner in the stanchion barn, and ran it outside so it would stack manure. Ever since, they have been stacking manure . . . for as long as three months at a stretch during the winter.

"It's expensive to spread every day in winter," Walt comments. "The tractor is cold . . . the spreader frozen up. With stacking, the manure can be spread when conditions are fit for man and machine!"

Warmed

To keep the outside portion of the gutter cleaner from freezing up in winter, the Jensens covered the cleaner chute . . . then blow exhaust air from the dairy stable through the chutes. This kills two jobs with one blow . . . the air has to be exhausted for ventilation purposes anyway, and the warmth of it in the right place keeps the gutter cleaner

chain and flights free of ice.

Other innovations at this farm include a grappling fork for moving bales of hay to the mow . . . and a kitchen dishwasher for washing milking equipment.

The grappling fork picks up 12 bales at a time from a hay wagon and . . . powered by an electric motor . . . takes them up to the mow. An ingenious counterweight system of an old milk can weighted with stones pulls the fork back to position above the load of hay.

As for the dishwasher, the Jensens place the milker heads (not the buckets) in it . . . instead of brushing and sanitizing by hand. — G.L.C.

SPUDS TO MILK

The Osborn family has farmed near Arkport (Steuben County), New York, for a long time . . . since 1844, to be exact. Today, Stanley Osborn and his sons . . . Robert and Carlton . . . operate the business.

It was for many years predominantly a potato-growing operation, but now the acres of potatoes have shrunk to garden size, and there are 100 milking cows . . . 120 is the year-round milking number planned. At present, the herd is composed of 25 Holsteins and 75 Jerseys.

There are 130 stalls in the free-stall barn; the herd is broken up into four groups on the basis of production. Silage, haylage, and grain are mixed together before going to the feed bunk; no grain is fed in the milking parlor. Hay is available free choice in the free-stall area.

Gutter Cleaner

Manure is pushed from the free-stall area toward one end of the barn . . . where a conventional gutter cleaner moves it to the spreader. However, advance planning was done when the barn was designed so that a manure-stacker could easily be installed.

Electric heating cables are buried in the concrete floor of the milking parlor, and around the perimeter of the milkhouse floor. They're also in the concrete floor of the gutter where the cleaner operates so it won't become immobilized in cold weather. The farmstead at SOS Farms (Stanley Osborn and Sons) is up on a Southern Tier hill, and the wind rolls unimpeded straight

(Continued on page 12)



Manure is stacked at the farm of Walter and Judith Jensen near Collins, New York. Stacker has been in use here since 1949.

(Continued from page 11)

out of the North Pole on winter nights!

SOS Farms is technically a corporate setup . . . one of those "corporation farms" held up as a bugaboo by some. However, it's strictly a family corporation . . . with Stanley as president, Carlton as vice president, and Bob being secretary-treasurer. All stock is owned by these three family members. There is one full-time employee . . . Otto Gates . . . who has worked for the Osborns for 34 years.

Stanley has a long record of public service . . . leadership in the school board, Grange, Farm Bureau, town board, Extension Service, and church. Outstanding farming, and outstanding community participation, by the Osborns brought them a recent Century Farm Citation. — G.L.C.

DAIRY AMBASSADOR

If you're a dairyman, how would you like to have 4,000 children look your barn over during the course of a year? That's the number that passed through the barn of Norman and Shirley Bartz of East Aurora, New York, in 1971 . . . and probably there will be even more this year.

It all started eight years ago with a few busloads . . . 200 youngsters that first year. But the Bartz family did such a good job . . . and it worked out so well . . . that the numbers have soared ever since. Most are students from urban and suburban schools, but there are occasional groups of Girl Scouts and youngsters from children's hospitals.

"In all the years we've been at this," Norman comments, "only one scheduled group ever failed to show up without notifying us. Every school group has kept its appointment."

Arrangements

Most arrangements are made by telephone calls to the farm; Shirley does most of the scheduling. Children range in age from 5 to 13 years, with 6 to 8 years being most common. A maximum of 120 children at a time is accepted.

"In spite of what you read about young folks," Norman goes on, "among all the 4,000 children that toured our place last year, only one was a real problem." Accompanied by Norman, who delivers a running commentary, the children look through the dairy barn, observe field

equipment, and even take a hay ride in the pasture if weather permits.

The visiting youngsters come to the farm during September to November, then again in April to June. They are always scheduled between 10 a.m. and 12 noon. By careful planning, and efficient work patterns, Norman and Shirley . . . and employee Carl Grover . . . get the work done.

There are 70 to 75 milking cows in the herd (plus 40 herd of young stock), 135 acres in the farm. "Sure, it has made us work longer hours at times," Norman comments. "For instance, we plant most of our corn at night."

How Come?

Why would a dairyman take on a job like shepherding all these youngsters through his barn? "Well, I was one of a large family," Norman comments, "and I've always liked kids. Also, the Upstate Milk Co-operatives, Inc . . . of which I am a member . . . encourages me in several ways, including the provision of milk for the kids to drink. Upstate also sponsored the booklet *Where Milk Is Made*, authored by county agent Tom Jorgensen, which we also hand out to the children.

"Perhaps the greatest incentive are the letters of thanks we receive from teachers and students alike. To many of them, it's an unforgettable experience . . . after all, many have never been on a farm before." — G.L.C.

DIVERSIFIED

Brothers Ronald and James Salzman operate a diversified vegetable and grape farm near Eden (Erie County), New York.

One enterprise is growing greenhouse tomatoes in plastic houses . . . two measuring 36×150 feet, one 36×96, and another 26×96. Double layers of 6-mil plastic forming side-walls and roof are spread apart by a small blower discharging its airstream between layers, creating about a half-pound of air pressure.

Black plastic covers the ground under the boxes of soil wherein tomatoes grow . . . this prevents weed growth from the earth forming the floor of the growing house. The boxes are lined inside with clear plastic; each box is sloped one-half inch in its 14-foot length so that water will drain to a hole in one end.

Each plant yields about 12 to 14 pounds of tomatoes during its productive life. They're picked three

Ronald (right) and Jim Salzman examine tomato plants nearing the end of their production period. Note plastic ventilation tube at upper left.



times a week; suckers are pulled once a week (and vines wrapped around supporting strings at the same time). "Hand" pollination . . . using a wind machine to assist in transferring the pollen within the blossom . . . is done daily.

No fungicide sprays are applied . . . biggest disease problem is virus-caused mosaic. Workers disinfect hands before working with tomato plants. Most troublesome insect pest is the white fly.

Growing medium is a sterile plant mix (half peat moss and half vermiculite) that is widely used in the industry to avoid the necessity of soil sterilization. Nutrients are provided to plants through the watering system.

About 90 percent of the tomatoes go direct to one chain of supermarkets, the rest to roadside stands in the area. The marketing season is generally October through December, then May through July, with the growing houses being thoroughly cleaned in August.

Other enterprises here include: cabbage, peppers (9 acres), sweet corn, and cauliflower. "There are only 70 acres in our farm," Ron comments, "and fresh-market vegetables offer the opportunity to intensify our operations on a relatively few acres."

Fifteen acres of Concord juice grapes round out the list of crop-growing activities. All are high-labor enterprises; all employees hired are local people. — G.L.C.

FLOODED

Carlberg Farms are operated by Alfred Carlberg, and sons Dennis and Greg, near Frewsburg (Chautauqua County), New York. The heavy rains of last June hurt their roughage program severely . . . inundating 136 acres of their bottomland. "Water covered our highest ground down there to a depth of 18 inches," Alfred comments, "and it was there for two weeks."

There were 26 acres of corn drowned out, and many acres of hay

spoiled. "We harvested some hay after the flood," Alfred comments, "but you can't imagine how that mud-coated stuff chews up equipment . . . just like running sand through it!" To add insult to injury, the Carlbergs report that Sudax seed . . . planted after floodwaters receded for a quick-forage crop . . . was heavily damaged by birds gobbling up the seed!

Higher Ground

Fortunately, the homestead is up out of the valley and therefore suffered no damage . . . and acreage on higher ground is also part of the operation. There are 70 milkers . . . 150 head in all . . . to feed at Carlberg Farms.

The herd remains in the comfortable stall barn all day in summertime . . . goes outdoors only at night. Heat and flies make summer daytime hours outside rather inhospitable for dairy cattle.

Calves are born in maternity pens inside the main barn . . . receive colostrum for three days from nipple pails . . . then go to a free stall calf pen equipped with a mechanical cow called Nursette. At about four days of age, each calf routinely receives two antiscour pills, but other medication is on an as-needed basis.

"The Nursette must be washed once a day," Dennis comments, "otherwise, forget it! We like it for raising calves . . . it keeps the milk-replacer mix warm, and shuts off in a way to prevent any one calf from overeating."

The Carlbergs also like the free stall arrangement for young cattle . . . at least right up toward the time when they're ready to join the milking string. "We put 'em in the tie stalls for awhile before putting them in the milking string in our conventional barn," Alfred reports. "Otherwise, they can be hard to handle at first."

On a regular basis . . . every other Friday at the moment . . . the veterinarian checks the herd. The Carlbergs plan their herd health routine around these visits, and the vet can thereby better program his time. — G.L.C.

Norman and Shirley Bartz raise pedigreed Samoyed dogs . . . which are a great delight to the hundreds of children that visit the farm each year. This breed was first developed in Iran, then "transplanted" to Siberia. This is why they are called the "Russian Sled Dog."



WHITE IS UP TO SOMETHING

The White Farm Equipment Company manufactures Oliver and Minneapolis-Moline farm machinery. And when you think about it, we have a lot going for us. Because, for one thing, we have a great family of products going for us. Products that we're proud to stack up against any in the field.

We have tremendous production capabilities and modern manufacturing facilities. Our people, both in the plants and in the field, are young-thinking, thoroughly professional and enthusiastic about our product line.

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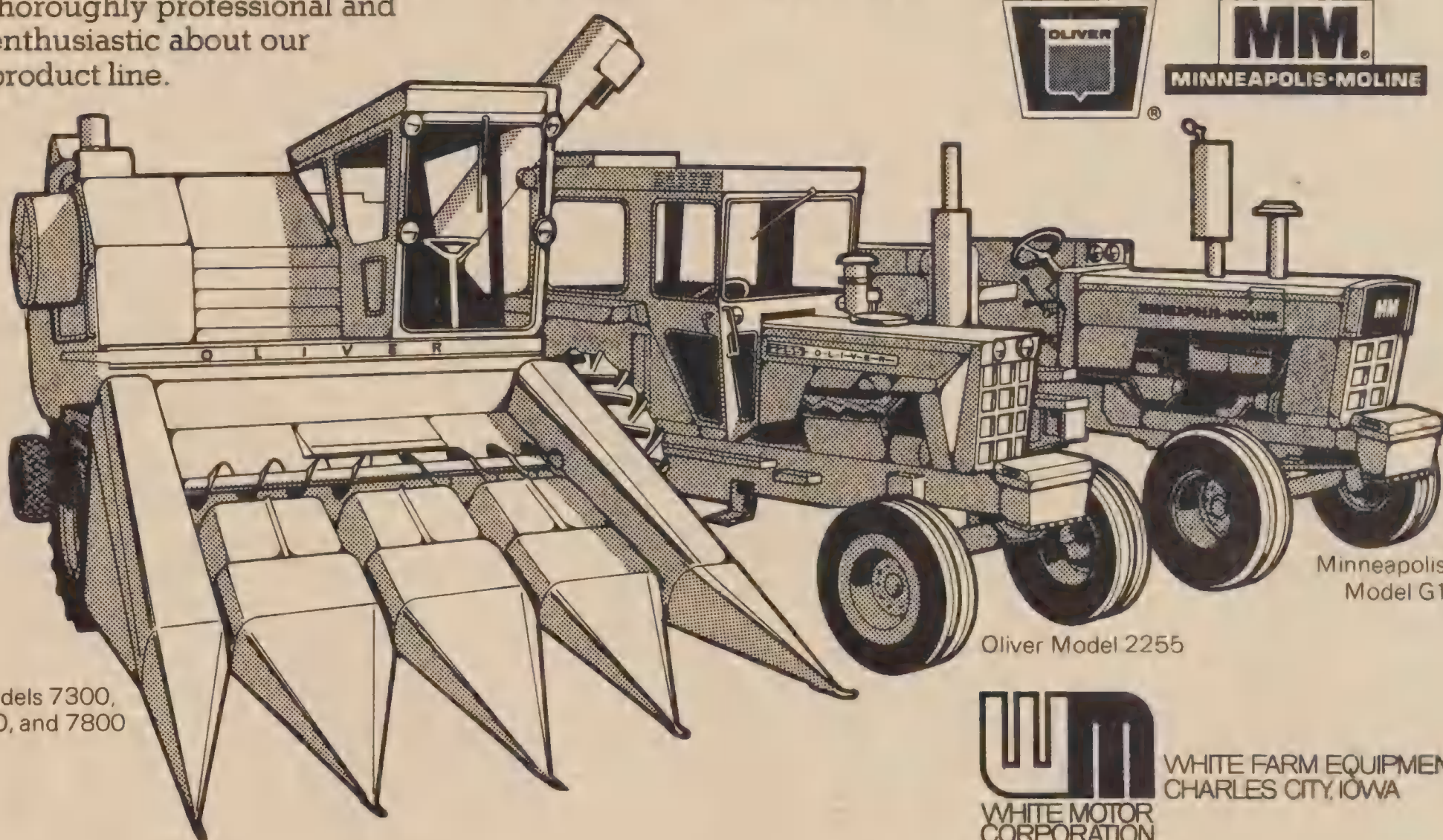
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Models 7300,
7600, and 7800

Oliver Model 2255

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WHITE FARM EQUIPMENT COMPANY
CHARLES CITY, IOWA



Is it hay...or junk?

by Bill Pardee

THIS summer's weather clobbered our Northeast hay crop, beating down both yield and quality. Most hay was cut late or rained on, or both! As a result hay prices have jumped, often far above what the stuff is worth for feed. Hay is rightfully a long-time favorite in livestock rations, but it doesn't pay to buy hay if other feeds are cheaper. Bill Quinn, in an article elsewhere in this issue, provides tips on feeding value of hay and possible substitutes. Price these while you're pricing hay, and you'll likely find some bargains.

But meanwhile let's take a close look at hay. This year's fancy hay prices place extra emphasis on quality. If you're going to pay top dollar, it'll pay you to shop around to pick the best quality available. Even if you can't find much that's good, it helps to know what you're buying before you start dickering.

Analysis

A forage analysis can help greatly, and your county Extension agent can fix you up with a sampling kit. But normally you won't have time to send in the samples to a laboratory when buying or selling hay. You'll have to go with an eyeball inspection only. But you can learn much by looking close-up at the stems, leaves and flowers in the hay. Telltale signs can indicate maturity, weathering, and give a rough idea of feeding quality. Start by breaking open a few sample bales. Look closely for these quality factors.

Earliness of cut is most important. Hay drops off in digestibility at about one-half-percent per day as the plants mature during late May, June. Thus hay cut on June 20 will normally be 10 percent less in digestibility than hay cut on June 1. And it'll probably contain 5 percent less total protein.

Flower development can give you a key to hay maturity, even when you don't know cutting date. In early-cut legume hay, alfalfa or clover, you should find dried flower buds, but few fully developed flowers. The fewer flowers, the better. If

the hay is loaded with flowers, it was cut later than ideal and the hay is correspondingly lower in protein and digestibility than bud stage stuff.

Poor Stuff

If you find alfalfa seed pods, or can rub seeds from the clover or grass heads, the hay was cut even later. Steer away from it unless it's the best you can find. This year you may run into some really late-cut stuff, with the seed already shattering from the heads. This has darn little feed value and is hardly worth trucking home.

Another quality giveaway is the amount of weathering. Frequent rains made haymakers miserable this summer and much hay was severely damaged. Check the hay closely to see how much weathering occurred. First look for lots of leaves. Rain-damaged hay will be low in leaves, high in stems. Leaves contain much of the protein, calcium, and phosphorus present in the plant. Hay that has lost its leaves is missing much of its feed value.

Green color is another indication of good curing and lack of weathering. It's also an indicator of high vitamin A potential. However, extra vitamin A doesn't mean much if you are feeding this in your grain ration. And green color does not mean that the hay was cut early.

Hay that's brown or black probably had moderate to severe weather damage, particularly if it's alfalfa or grass. Clover hay turns dark easily and can still be good even with some darkening in color.

Nose Test

Avoid hay that's musty or moldy. Best test is the nose test. Stick it right down in the hay and take a good whiff. Molds reduce digestibility and palatability. Cows don't like moldy or musty hay, nor will they do well on it. Be sure the hay has a fresh pleasant odor.

Check also for a caramel or toasted smell. This may be accompanied by a brown or charred appearance in

the hay. Such hay over-heated in the mow. It's not as good as it looks, since heating converts proteins from digestible to indigestible form. Cows like caramelized hay, but won't do well on it.

Other things being equal, legume or legume grass hays generally hold more protein and minerals than straight grass hay. And cows will usually eat them better. But either type can make good feed if cut early and with little weather damage.

Hay is worth what you can get for it, if you are selling. But if you are buying, it's only worth what you can get back in the form of milk or animal performance. Check Bill Quinn's article in this issue for tables of hay values in terms of feed nutrients. If the price of hay is too high, or is not justified by the quality, look for other sources of roughage for your cattle. Hay may be short, but that's no reason to pay more than it's worth if other feeds are available.

CORN LEAF BLIGHT

Corn leaf blights are showing up again in New York. At this writing, yellow leaf blight is widespread in the state, occurring on a wide range of hybrids. Southern leaf blight, which caused so much damage the past couple of years, is showing up again, hitting "T" cytoplasm hybrids hard.

So if you're ordering corn now, choose only normal cytoplasm hybrids for next year's planting. Seed supplies of "N" or normal types should be plentiful, so there's no need to plant "T" varieties.

When ensiling blighted corn, be sure you get good distribution and packing in the silo. Dead corn leaves can blow together, forming a mass that doesn't pack. Air stays in the mass and you can get spoilage in your silo. There is no danger from the disease itself; it's killed quickly in the ensiling process. But blighted and dried leaves, causing poor packing, have caused silage spoilage and loss in each of the past three years, and they'll do it again this year.

EXTRA SPRING FEED

Rye sown in the next few weeks can help your forage picture next spring, when you'll most need it. Rye will establish this fall, then start growth fast next spring, and can normally provide grazing by mid-April, and green-chop in early May. If you're short on feed, this is when you'll be tightest, so it's worth considering.

Rye is an easy crop to grow and doesn't need much tillage. Pick a field or fields where you grew row crops or small grains this year. Avoid corn fields if you used atrazine last spring, since atrazine carry-over can hurt your rye.

Disc or drag the field to work up a reasonable seed bed. It doesn't need to be finely worked, just enough to insure seed-soil contact. Sow rye at 2-2½ bushels of seed per acre. Best fertilizer rates vary some depending on your soil, but 200 pounds of something like a 20-20-10 ratio will fit most situations. The actual ratio isn't important, so long as you end up with about 40 pounds of nitrogen, 40 pounds of phosphorus and 20 pounds of potassium. If you

spread manure first, you can cut the nitrogen in half.

Don't put rye on poorly drained land or fields you may not be able to get into until late next spring, because it does grow so fast. It heads early, and once headed, is hard to plow under. You'll end up being tempted to leave it for grain, not normally a paying proposition.

Rye fits best for just the purpose we've noted above, early spring feed, to lighten your feed picture until other pastures and early hay crops are ready.

TRITICALES

We've had another year's look at triticales in the Northeast, and as frequently happens, results are mixed. At Ithaca this year we tested two varieties of this much touted hybrid between wheat and rye. One winter-killed completely, the other lodged so severely we were not able to harvest grain. However, we have heard of several farm plantings which stood up and produced respectable yields.

It continues to appear that this crop has promise, but we feel present types, bred for the far west, are too tall for most Northeast conditions. It will take further breeding to shorten these up and adapt this crop to our region. As we have noted before, triticales can be grown only for feed, since there is no grain market for this crop.

SELECTING CORN HYBRIDS

Early corn hybrids will once again pay off in the Northeast this year, once more underlining the fact that it pays to select hybrids on the early side for your farm. This holds whether you grow corn for silage or grain.

In 1971 and 1970, long, warm falls helped longer season hybrids ripen, making it easy to misjudge their ability to get ripe. Despite such unusual years, our Cornell corn testing program shows that over the long pull, highest yields and best quality grain and silage come from early hybrids selected to mature well year after year.

The "one year wonder" that looked so great following last year's warm October will have tough going to make it this season.

LOOKING AHEAD

Fall's a busy time with harvest in full swing. Still, it's a good time for planning ahead. Soil tests are much easier to take now than next spring, and you'll have results back in plenty of time to get your order in for early service.

It's also a good time to have lime applied. Spreaders can normally get on the field now better than during spring rains. And if the stuff goes on now you won't have to wait for delivery come planting time.

Poorly drained and wet spots really show up this year. Harvest is a good time to note these to make plans for tiling to get rid of them. They took their toll this year in lost nitrogen, reduced yields and stuck tractors. It's a long-range program, but water control through tiling or through surface drainage is a long-term investment that can pay off. Your SCS representative or your county Extension agent can help you plan.

American Agriculturist, October, 1972

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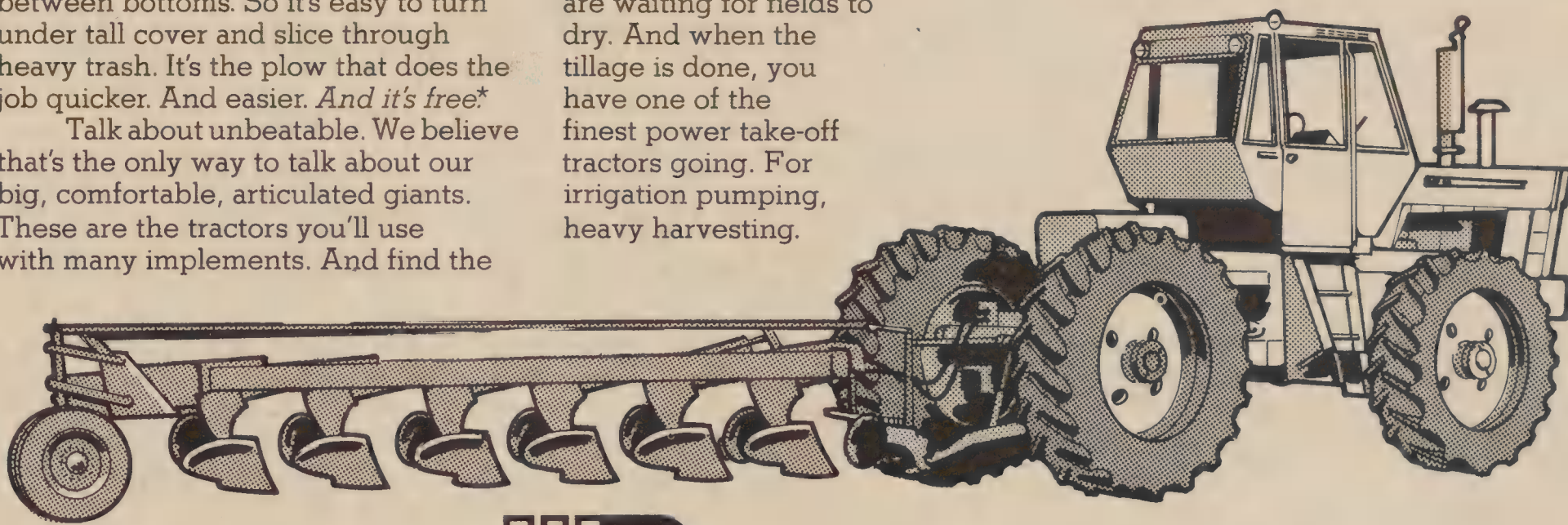
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In slippery, soft, or wet going, our articulated tractor is hard at work while others are waiting for fields to dry. And when the tillage is done, you have one of the finest power take-off tractors going. For irrigation pumping, heavy harvesting.

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Short of feed?

by Bill Quinn*

Here are suggestions on how to get through to grass . . .

PITY Joe Cowman. Has he had troubles? To begin with, it was raining so much this spring, he couldn't get his corn planted. Then came Agnes — and those few acres he did have in the ground became so wet that the carp were swimming up the corn rows.

It was a bad scene! Nitrogen leached from the soil. Water saturated the root zone. Cultivation was impossible. Herbicides, when Joe was able to get any of them on, lost much of their effectiveness. Weeds — redwood and ragweed, lambsquarters and mustard, plus a motley assortment of grasses — flourished. Kill, gully and sheet erosion aggravated the situation.

The old-timer's yardstick "knee high by the 4th of July," which had become out of date for Joe because he usually surpassed it, was still not appropriate — but for a quite different reason. Joe's corn was nowhere near that far along by Independence Day. In fact, some of it was still in the bag!

Haying

Then there were Joe's attempts at haying. He was late starting, but even later finishing. He cut, and it rained — more cutting, more rain — a pattern to be repeated with discouraging regularity. Low spots drowned out. Weevils continued to eat their fill, unchecked by chemical deterrents.

Finally, in mid-August, Joe finished his first cut, ending up with a mixed potpourri of questionable quality. It was an assortment of hay that had been rained on, hay that had lodged, that had rotted at the bottom — coarse, stinky material that in most years Joe would have let the heifers pick over — or would have used for bedding.

Joe Cowman's name, of course, is fictitious. But his situation is very real. It has been repeated, in greater or lesser degree, on thousands of farms throughout the Northeast this year.

*Extension agent, Onondaga County, New York

Joe remembers the adage, "A dry year will scare you to death, but a wet year will starve you to death." He knows that it contains a lot of truth. The record shows that milk supplies in drought years hold up much better than anyone expects. In fact, they tended to increase rather than decrease in the dry years of the mid-sixties.

Choosy

A wet year like '72 will probably tell a different story. For whether he likes it or not, Joe's cows will "grade" his forage, and report their results in the milk pail.

But dairymen like Joe, with good planning and good management, can do a few things of their own — things that will help compensate for the blows struck this year by Mother Nature. For Joe and his counterparts throughout the Northeast, here are ten suggestions:

1. Appraise your individual forage status. No two dairy farmers are exactly alike. Each is faced with a different situation, and each must decide for himself what adjustments he must make. But the time for planning is now, not next February.

2. Give yourself a refresher course in dairy cattle nutrition. Most years, there is a pattern of regularity to a herd feeding program — a pattern a dairyman has developed over the years from individual experience with his own herd — a pattern adjusted with the seasons and the kind of forage — but a pattern he knows will work.

This year, that consistency is gone. The patterns that have served a dairyman well in normal years may no longer apply. Not only is forage of dubious quality, but the quantities fed may have to be restricted.

Colleges of agriculture throughout the Northeast have literature available that can be used as "text books" for your refresher course. From Cornell, two bulletins — "Quality Roughage for Dairy Cattle" (#994), and "Feeding the Individual Cow for Maximum Returns" (#1156) — are

chock-full of useful information. Single copies of these bulletins are free to New York residents. For out-of-state residents, #994 is 10 cents, #1156 is 25 cents. To get them, write: Mailing Room, Building 7, Research Park, Cornell University, Ithaca, New York 14850.

3. Inventory forages on hand. The word "inventory" scares some people, but it's no big deal. For a common denominator, convert all your forage to "hay equivalent." Divide your tons of corn silage and wilted hay-crop silage by three. Divide low-moisture haylage by two. Add both figures to the tons of hay you have on hand, and you'll end up with the approximate tons of hay equivalent available.

4. Tally up the animals to be fed. For easy calculating, convert them into "1,000-pound units." Animals consume forage in relation to their size. At full-feed, a dairy herd will consume forage at the rate of about 2½ to 3 pounds of hay equivalent daily per 100 pounds of body weight.

To get this kind of intake, it requires forage of only the best quality. At this maximum rate, a herd with an average body weight of 1,200 pounds would consume about 30 to 36 pounds of hay equivalent per head per day.

The minimum amount of forage needed to sustain rumen function is about ½-pound of hay equivalent per 100 pounds of body weight (6 pounds for a 1,200-pound cow). However, at this rate, or at any intake less than one pound of hay equivalent per 100 pounds of body weight, conditions are ripe for depressing butterfat test.

From a practical standpoint, it's probably not wise, except in extreme emergency, to limit forage intake to less than one-and-a-half pounds of hay equivalent per 100 pounds of body weight. For a 1,200-pound cow, this means 18 pounds of hay, or 54 pounds of corn or grass silage.

one with water, this highly-palatable feed won't improve poor hay, but it will help increase the amount of it the cow eats.

Molasses itself is a valuable feed, but because it is usually not among the "best buy" energy sources, it should be considered as an appetite-stimulator rather than a top choice among feed alternatives.

5. Balance your forage supply against your needs and see how well it stretches. The song says "it's a long, long time from May to December." But for the dairyman, it's the other way around. If his arithmetic shows that he doesn't have the one to one-and-a-half-pound daily hay equivalent requirement (per 100 pounds of animal weight) for the 200-day barn feeding period from October to May, he'd better find an additional supply. If he does meet the minimum, but is below the two-and-a-half pound optimum level, he must make up the difference — replacing roughage with other nutrient sources.

6. Quality index your forage. Just how good, or what's more likely this year, just how bad is your roughage? One way to find out is by having it analyzed. Your feed service representative may be able to help. Or you can secure forage testing kits from your Cooperative Extension agent. With the hodgepodge of forages in many barns — ranging from limited quantities of excellent material, and running the gamut from bad to worse — forage tests can serve as benchmarks for evaluating different lots of different quality.

The calendar is also a pretty good guide to forage quality, although it fails to measure the effects of weathering and leaf loss. Dr. Reid's work at Cornell on the changes that occur in the energy and protein content of forage with increasing maturity, while well-known to most dairymen, is worth reviewing:

Cutting Date	Legumes		Grasses	
	% TDN*	% Total Protein	% TDN	% Total Protein
June 1	63	21.5	63	16.5
June 15	57	17.5	57	13.1
July 1	50	13.2	50	9.8
July 15	44	9.6	44	6.8

*Total digestible nutrients

or 36 pounds of low-moisture haylage.

If it's any consolation to a forage-short dairyman, a cow herself will reduce her intake of poor-quality forage. Studies have shown that dairy cows that consumed 32 to 36 pounds of early June-cut hay voluntarily dropped back their intake to 22-24 pounds when fed hay cut just six weeks later.

Many dairymen may choose to purchase molasses to sprinkle on top of hay at feeding time. Cut one to

7. Supply the energy and protein needs not furnished by forage. Even if you have enough forage, chances are good that you'll need to feed extra grain this year. Poor-quality forages, and reduced intake of them, combine to require more grain for the production of a given quantity of milk. Let's look at a cow producing 50 pounds of 3.5-percent milk, and eating forages of varying quality, to show this change in grain requirements:

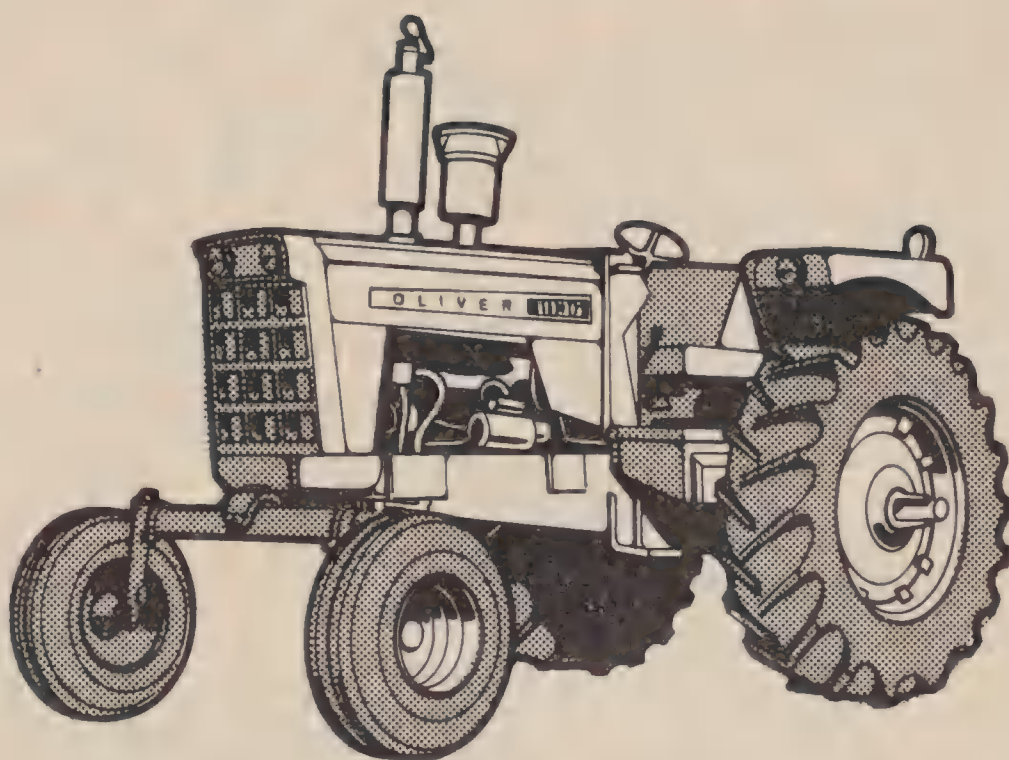
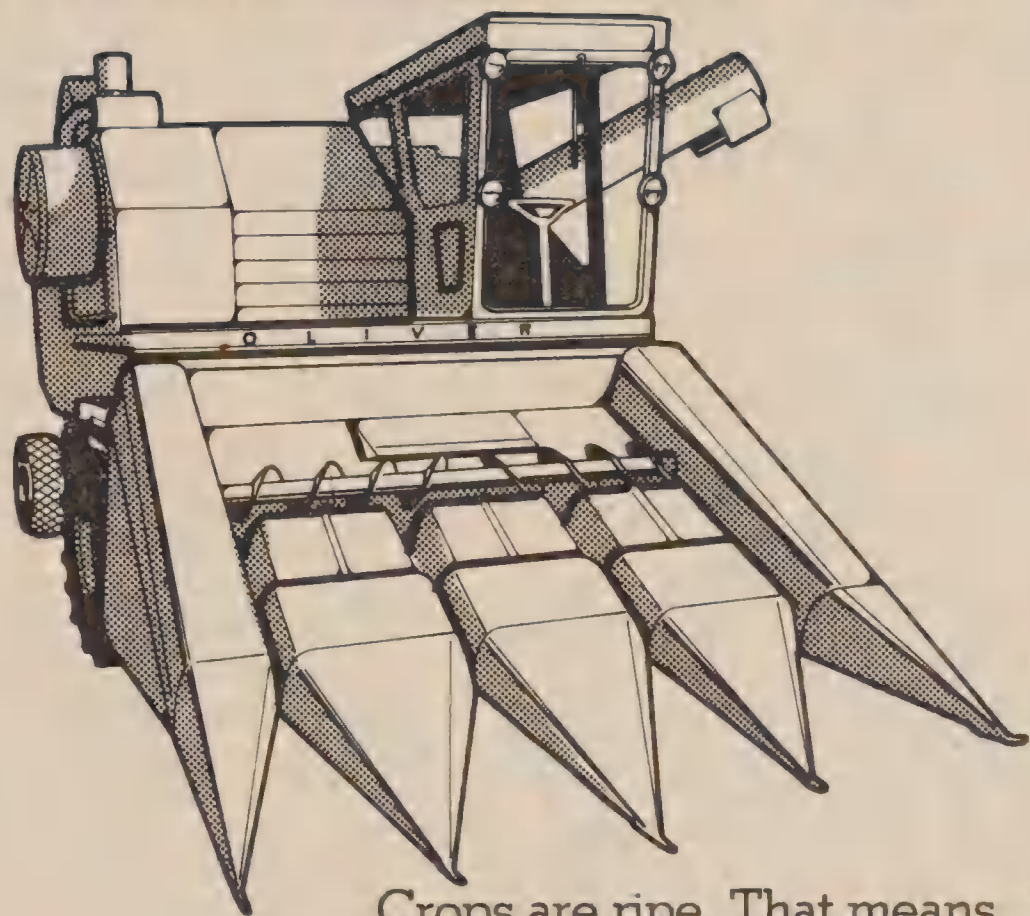
Forage Quality	Intake*	Grain Required
Excellent — (60% TDN)	2½ lbs. HE/cwt.	10 lbs.
Good — (55% TDN)	2¼ lbs. HE/cwt.	14 lbs.
Fair — (50% TDN)	2 lbs. HE/cwt.	19 lbs.
Poor — (45% TDN)	1½ lbs. HE/cwt.	25 lbs.

*HE — hay equivalent

(Continued on page 24)

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William Smith of Big Flats, New York.



Alfred and Emily Lescovec.

When the floods came

William T. Smith:

I was in New York City on business when my wife called me on Thursday, June 22, to tell me she thought we would get a flood, and I'd better get home.

I caught the first plane to Big Flats, got in at 8 p.m., and the local firemen brought me to my farm in a boat. The waters were just coming in the first floor of the house. My wife and 19-year-old son were there; the hired men had left for higher ground. The firemen left, and we stayed there all night, thinking at any time the flood waters would stop rising.

Stayed Before

We have habitually stayed at the farm during floods because there are so many last-minute things to do. A flood in 1946 put four feet of water on the first floor of our house. And, according to my grandfather, a flood in 1889 caused 22 inches of water on the first floor of the house in which we presently live.

By late that night, communications had shut down. This was contrary to the situation in 1946 when we had electric and telephone service all through the flood and could get some idea of what was happening.

The radio was of no help because their information was pretty scattered and they were confident the

flood was going to stop almost momentarily. At midnight, in fact, the information for both Corning and Elmira was that the dikes were going to hold. However, having lived here all my life, I felt that the flood waters would come higher.

My family had already moved a good share of the furniture to the second floor by the time I arrived home, and there were two or three hours in which my son and I were able to move farm records and heavier pieces of furniture. We wrestled with an organ, but lost the battle about three in the morning when we couldn't move it up as fast as the water was rising.

About 10 a.m. Friday, firemen came by in a boat and asked if we wanted to leave. We didn't see much point in staying any longer. At that time, the water level was one foot from the second floor. Subsequently, it went up two feet over the second floor, eight feet higher than the flood level of 1946, or about 16 feet above our lawn.

I believe I was the first to come through the valley Saturday morning, walking up the road after the waters had receded. It was a devastating sight. . . . telephone poles and power lines down, barns in the middle of the road, mud all over, and washes in many places.

Editor's note: The water has long since receded in the flood-torn areas of southern New York and northern Pennsylvania. But the memory of this catastrophe can fade too quickly, and thereby slow planning for the future. Correspondent Joseph Albino has interviewed two farmers who lived through the horror of the raging rivers, and they recount here what it's like to experience nature's fury.

William T. Smith, in addition to being a dairy and poultry farmer near Big Flats, New York, is a state senator representing Chemung, Steuben, Tioga and Tompkins counties.

Alfred and Emily Lescovec operate a dairy farm, also near Big Flats.

ever, no warning was given by the flood control system, and it has been unclear as to who gives out information.

Because we've lived for years in this flood area, we have a plan to move. On Wednesday noon, my foreman concluded we were going to get a pretty good flood, so he milked the cows, and trucked them to another farm we own on higher ground.

But if we'd had warning of a worse flood than that of '46, we would also have removed our young stock and the hired man's horses from a barn built above the 1946 flood level. This year, the flood waters went four feet into the haymow, drowning 18 head of young stock up to six months of age. Two horses drowned.

I also feel we need a central authority, on the state level, in a disaster of this dimension. Civil defense was originally set up to handle disasters, though many people thought it was set up to cope only with an atomic bomb attack. As the atomic scare disappeared, the legislature cut appropriations for civil defense.

Due to a lack of both the funding and the trained manpower, civil defense was not as effective as it should have been. Now I think we need a substitute organization to handle disasters.

Central Authority

During the flood, a lack of central authority was a major problem. Firemen made decisions. State police made decisions. Local police made decisions. Sheriffs made decisions. City, town and village officials made decisions. The national guard made decisions. Yes, everyone did a great job despite the confusion, but a line of command during a disaster is obviously needed.

There should be a well-thought-out organization plan under the Governor's office available for times of disaster such as our flood. I believe a study is underway by the Department of Transportation. As a constructive plan unfolds, I'll be pleased to introduce new legislation and help to see that it gets passed.

There is also a problem with real-estate taxes. By law, property is taxable if owned in, say, May when the tax rolls are made out. But in September and October, property owners will receive tax bills for homes and barns which went down the river. When the taxes aren't paid, liens will be placed against property that no longer exists.

This cannot be allowed to happen. As a result of the flood, the tax base for many communities has been greatly decreased, and will create problems that will be with us for years.

I think the government, through its varied agencies, is doing a good job, especially when you consider that bureaucratic departments are not designed for emergency situations. But I don't think the people should always look to the government to help them in all situations.

As one resident pointed out, in 1946 the people received very little aid. And there have been other floods in the past in which people received little aid, but went on and survived. The current philosophy is that it's the obligation of the government to

(Continued on page 27)

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Earl L. Butz

Interview with Secretary Butz

HERE are replies by the
Secretary of Agriculture to questions
posed about northeastern concerns . . .

As more and more formerly Grade B milk in the Midwest shifts to Grade A, there arises the question as to whether all federal-order milk pricing should be hooked to the Wisconsin-Minnesota price of milk for manufacturing. What changes, if any, do you propose in the milk-price formula in federal order markets?

The Minnesota-Wisconsin price is the average of prices that farmers in these two states get for manufacturing-grade milk. That average has worked well to show changes in milk values. Class I (fluid) prices under all federal orders move as the Minnesota-Wisconsin price changes. That M-W price is also used for pricing surplus milk in 48 of the 62 markets.

However, the shift from Grade B to Grade A production will eventually require alternative means of pricing. That was the conclusion of an internal USDA advisory group which studied methods of pricing milk. Alternatives are being studied now.

Wouldn't an economic formula, with several economic "movers," make sense for pricing milk?

A formula using various economic indicators . . . including general price and income changes . . . makes sense for moving Class I prices, as long as that formula arrives at prices which maintain a reasonable balance between milk supply and fluid-milk

sales. Perhaps we can develop a pricing system that will anticipate supply-demand balances by considering such things as present and future costs of producing milk; alternative farm and off-farm opportunities; and the effects of prices, substitutes, income, and population growth on demand.

You can see how difficult it is to come up with a good pricing system. You can't have Class I prices that are so favorable that they generate unneeded Grade A milk into the hands of Commodity Credit Corporation and cause us to reduce support levels. By the same token, if supplies are short and support prices are high, we need assurance that the higher support levels will be reflected in prices to federal order producers. Any formula developed for pricing Class I milk under milk marketing orders should be consistent with the objectives under the price support program.

Present milk-pricing procedures in federal order markets have squeezed handlers unmercifully, including operating cooperatives. Do you propose any changes that will reduce this crunch between the mandated price handlers must pay to farmers, and the realities of the marketplace?

When the price freeze went into effect in August, 1971, handlers said they were caught in a cost-price squeeze on sales of fluid milk. Class

I prices under federal orders weren't known until the fifth day of the month to which they applied, and handlers said they had trouble adjusting resale prices to changes in federal order prices.

We held a public hearing to consider the problem. Following it, we amended all federal orders, effective February 1, 1972, so that the Class I prices for each month would be announced on the fifth day of the preceding month. This gave handlers 25 days notice of a Class I price change, enabling them to take steps, if need be, to get Price Commission approval of resale price changes.

Pricing of "reserve" milk has raised questions. Some co-ops suggest that excess milk should be priced differently in different markets. If that were done, we'd have to decide which co-ops are efficient or inefficient, which ones are performing services for handlers, which are in federal order pools solely because of the lower excess milk prices, and which markets have higher costs than other markets. Since manufacturing milk products compete on a national market, we have found it practical to price surplus milk under federal orders on the basis of competitive pay prices of unregulated manufacturing plants.

What is your position relative to support prices on milk and dairy products? Do you propose raising it in the future?

We plan to see that consumers have plentiful milk supplies and that farmers have a fair price for producing that milk. This is in the mutual interest of both dairymen and consumers. In order to achieve that goal, we keep a constant review of milk supplies and the use of milk.

Next spring, we will need to make a decision for another year on milk price supports. At that time, we will weigh economic conditions that exist at that time . . . as well as prospects for the coming year . . . and after conferring with dairy groups, will make the best judgment that we can.

Rural development has traditionally received a great deal of attention . . . and durned few funds. What are the major thrusts of proposals you favor in rural development, and how will they be implemented in the Northeast?

That statement is partially true if you look at rural development as a separate entity of the Department. But when you consider the thrust of a number of agencies in the Department, there is a different story.

The construction of water and sewer systems, and the building of homes, has had a major impact on rural development in New England. Such construction creates many jobs, attracts industry and keeps many rural people from leaving rural areas. In fiscal year 1972, for example, the Farmers Home Administration made 4,414 housing loans and 31 water and sewer loans in New England. The dollar impact was in excess of \$72 million.

The major thrusts in rural development are:

—Economic development to establish businesses and industry, to provide credit, and to create jobs.

—Community facilities for housing,

utilities, water and waste disposal, and transportation.

—Environmental improvement to conserve resources, provide recreation, preserve forests and wildlife, and for land use and planning.

—The building of people to provide them with the opportunity to obtain an education, a job, health services, better food and nutrition, income security and most important, to develop local leadership.

The Rural Development Act of 1972, which President Nixon signed just recently, provides the Department with an array of programs and financial resources that will bring into existence an effective rural development program.

The Department will be able to make and guarantee rural business and industrial loans which should substantially improve the economic and environmental climate in rural areas. Financial assistance for planning can be tied in with the business and industrial loans. In addition, the definition of rural areas has been redefined to include cities and towns up to 50,000 population for such loans.

Individual business loans can be made to families that need additional income.

There are authorizations in the Act so that assistance can be provided to sponsors of water quality management, control of agriculture-related pollution, disposal of solid waste, to reduce pollution and to help improve health conditions in rural areas.

Loan and grant assistance for water and sewer systems so essential for rural development has been increased. This will enable the Department to more adequately serve such a need in rural areas. Businesses cannot develop without water and sewer systems.

Communities need fire protection. The Rural Development Act will permit loans to be made for facilities and equipment to protect communities from open fires.

Potato growers in the Northeast complain that the ICC is being approached by western railroads on behalf of lower freight rates on eastbound potatoes . . . not to be matched by lower rates on westbound spuds. Will the USDA participate in this squabble, and, if so, what position will it take?

These rates (as of August) are still in the proposal stage and haven't yet been acted on by the railroads. The railroads could either approve them, with or without changes, or disapprove them. To date, we haven't taken a position on the proposed rates.

More than three-fourths of western potatoes move by rail to eastern destinations, but nearly 90 percent of the eastern potatoes are shipped by truck to eastern and western destinations. In many instances, the rates charged by the truckers are higher than the rail rates because of better service.

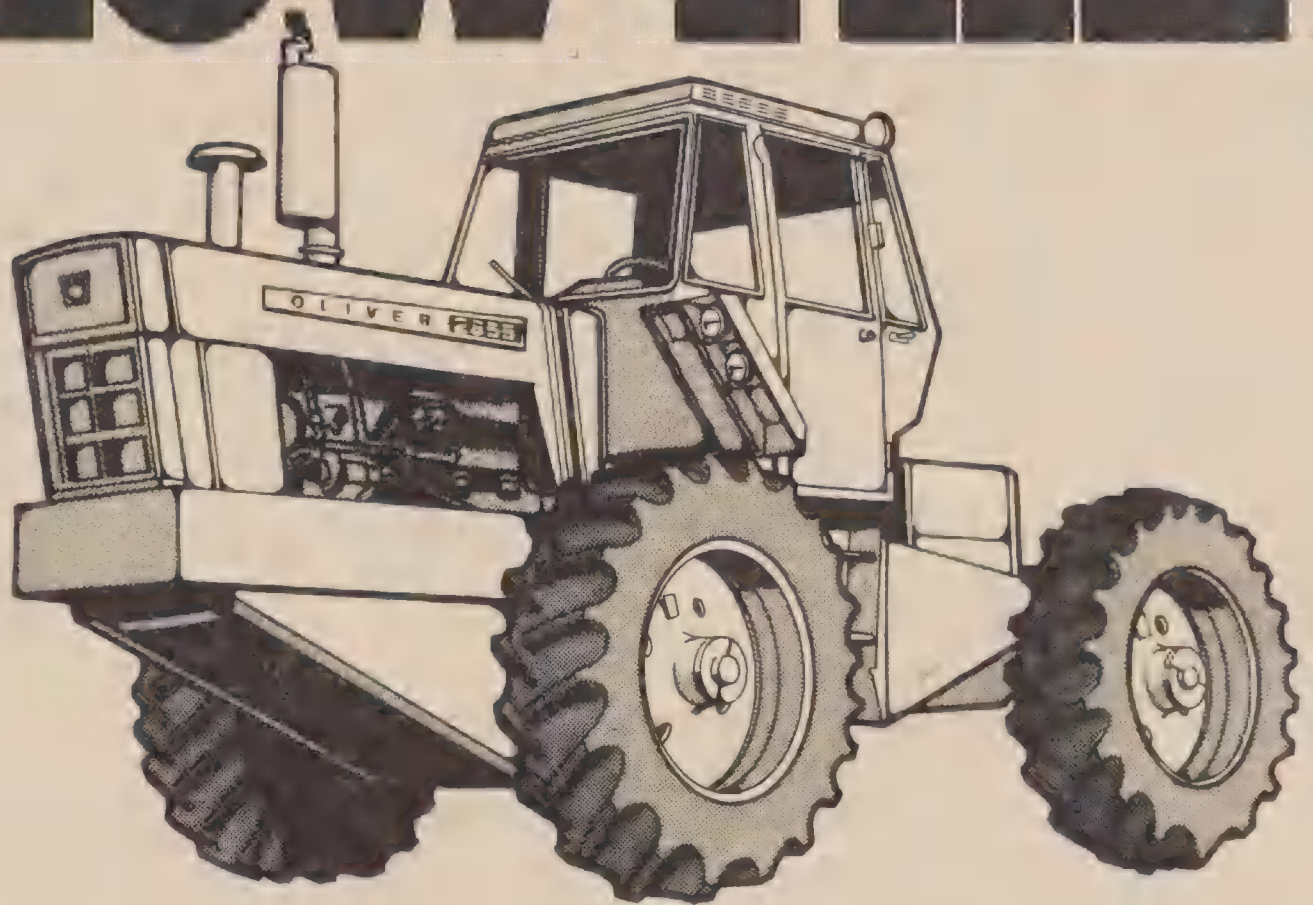
Since the eastern railroads cut their rates within the past year without any increase in their tonnage, it isn't likely they'll consider any further reductions.

To recapture potato traffic in the

(Continued on page 26)

American Agriculturist, October, 1972

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CHARLES CITY IOWA





The Smiths check a trailer load of apples just before sorting in the open packing shed in background.

by Charles Stratton

Orchard renovation

WHAT do you do with forty-year-old McIntosh and Cortland apple trees that have been neglected due to family illness? Do you buy new trees at about \$2 each and wait fifteen years for a paying crop? Or renovate by custom pruning at a cost of \$5 — \$6 per tree, including brush removal?

This was the question Donald and Ruth Smith faced about four years ago when they purchased Windy Wood Farm, Barre, Vermont, from the estate of his late parents, and set about revitalizing the farm's old orchard. The Smiths' decision: Prune to the limit!

The custom pruners came in and within a week pruned 600 bearing trees, cutting out the tops and putting the trees in condition for maximum production. "Actually," Ruth Smith says, "we worried because they took out so much wood." But the pruning really paid off the following year with a crop practically free of scab, and a production increase of 2,000 boxes. Now one man works throughout the winter to keep trees properly pruned.

Dusting

Windy Wood's new owners were among the first to dust trees by plane. Earlier, they had sprayed the orchard by conventional methods using a tractor-drawn sprayer. Donald Smith points out several reasons for the change.

"It took us two or three days to

cover the orchard by conventional ground methods," he says. "Now when dusting conditions are right, we call Al Quesnal of Dustaire Company in Middlebury, and he's over the orchard within ten minutes. Within twenty minutes the orchard is completely protected."

He claims that even under adverse weather conditions, the plane will be there in minutes of his call. The pilot "flies by the seat of his pants," and can come in under low cloud cover if necessary.

A little water is added to the dust to prevent drift, so it settles down immediately, sticks to the leaves, and cuts drip. It takes only one pass to dust the orchard. Since the Windy Wood program calls for 10 or 15 dust applications per season, there's a big saving in time and labor.

No Leftovers

Another advantage is that no money is tied up in a big tractor or sprayer, nor in dust materials. Also, there's no problem with leftover dust materials in farm storage. Dustaire provides all materials and warehousing.

The big disadvantage is higher cost, but Smith figures that the pluses of aerial dusting far outweigh its minuses. A small ground-rig is still used on a young orchard of 200 trees.

It costs money to store apples, so the Smiths find it's a tremendous advantage to sell utilities and seconds

during picking, and to store only premium fruit.

Smith claims a fruit grower takes a big chance by storing apples that will be worth only \$1.50 a box in March. The fruit shrinks, and it may take several boxes to pack out one box of top-grade apples. So, he reasons, why not get rid of lower grades during harvest?

Sorting

Freshly-picked apples are brought into an open packing shed and sorted immediately. The higher grades are sold to stores. Only filled boxes of choice apples are placed in storage.

During sorting, one employee operates the small grinder and cider press in another building, turning out 50 to 60 gallons a day.

Smith averages two-and-a-half gallons of cider per box, which nets him about \$2.50. This way he solves the problem of utility grades, avoids dumping lower-grade fruit on the market, and makes a better profit on utilities, seconds and green apples that wouldn't wholesale for more than \$2 a box. Cider is sold to several area colleges on a contract basis, to local stores, and at Windy Wood's salesroom.

Smith takes advantage of local labor conditions and has no trouble getting picking help. Part-time help includes ex-army personnel, granite workers who pick from 4 p.m. until dark, and retired people in good health. He also hires as many full-time workers as possible. One good picker even makes up a crew of his friends each year.

Pickers once paid by the hour are now paid by the box. The Smiths claim this method requires less supervision. Pickers work at their own speed and pick more apples daily.

Gift Packs

Windy Wood Farm is noted for the quality of its fancy gift fruit packs shipped throughout the country. The old-style 24 and 48-apple cardboard pack used here for many years has been replaced by the New York-New England Apple Institute's PAX, a 15-apple styrofoam pack that can be extended in multiples of 15 to hold a total of 45 three-inch apples.

The advantages are many. The old method required newspaper packing

and shipment in a second protective box. The new box is a timesaver. Simply put in the apples and tape it over with a special tape.

No make-up of boxes either. Smith points out that it may not take too long to make up just one of the old-type boxes, but you can use a lot of time making up a hundred.

The new pack is also slightly cheaper, and he doesn't have to buy in large quantities and stockpile to get a good price. When his supply gets low, he simply picks up the phone to get prompt delivery of the required number.

Before giving the new pack full approval, Windy Wood mailed test shipments throughout the country, and one 45-apple gift pack, ordered by an army sergeant in Thailand to treat some youngsters, was shipped by air and arrived in perfect condition.

Catalog

Each year the "Applegram," a newsy mail order catalog listing Windy Wood's Vermont products, goes out to some 1,500 customers across the country. Besides gift apples, the farm ships its own patented apple syrup and its own apple blossom and clover honey, as well as Vermont maple syrup, assorted cheeses, and local jams and jellies. The Smiths find that high postage rates don't stop customers from ordering.

With the aid of C. Lyman Calahan, Vermont's Extension fruit specialist, the Smiths are developing a program for the future. One early variety, the Milton, is already paying off. Their new 200-tree orchard includes Quinte and Lodi, varieties developed to increase early-apple sales to stores. Another is Paulared, a variety that's "redder than early Macs."

In summing up their orchard program, Donald and Ruth Smith say, "It's an advantage to sell our utilities, seconds and ciders during harvest and hold our premium apples in cold storage for sales to local stores, retail sales at the farm, and for gift pack shipments. We can still make a good profit on our lower grades without glutting the market with inferior fruit."

TRIUMPH OF ADVERSITY

Don't worry over problems,
Life isn't all elation,
No oyster ever made a pearl
Without some irritation.

by D. A. Hoover



Ruth Smith compares their old cardboard gift carton with the new styrofoam gift apple pack held by her husband Donald.



Aroostook winner

Timothy Edgecomb is a progressive young man with a knack for growing good crops.

The 20-year-old Limestone, Maine, native entered high school in 1967 and started a vocational agriculture crop program. From a modest quarter-acre garden the first year, the program was expanded to include 26 acres of potatoes and peas.

Winner

Edgecomb's crop program was so successful that he was named winner for the North Atlantic Region in the 1971 FFA Crop Production Proficiency Award program.

This program is designed to encourage vocational agriculture students to translate lessons from the classroom into profit-making applications. It is sponsored by the producers of Funk's G-Hybrids in co-operation with the National FFA Foundation, Inc.

Edgecomb raises his own seed stock and harvested 192 barrels of potatoes per acre in 1971. He personally contracts for the sale of the almost 5,000-barrel crop. In addition to quantity, the potatoes have quality. In one of the most competitive contests in the country, the Northern Maine Fair, his potatoes have consistently placed first.

Whirlybird

Lessons learned in high school were easily translated into on-the-farm practices. Soil sampling and testing, pest control and other prac-

tices were all utilized in his program. In 1971, for example, he hired a helicopter to spray his potatoes for top-kill before harvest.

Edgecomb's interest in the crop does not stop at harvest. He has helped build and improve bulk truck bodies for hauling potatoes more efficiently.

"I utilize a new technique of spraying a building-type insulation into the truck bodies," he explained. "This material serves as a cushion to protect the potatoes in transit. In winter, it insulates the potatoes when we move them."

Peas are also an important part of his crop program. He harvests an average of two tons per acre and contracts with local canneries for the sale of over 30 tons of peas a year.

Vocational agriculture and the FFA have played an important part in molding Timothy Edgecomb into a farmer. He is quite vocal on the subject of the FFA Crop Production Efficiency Award program. "The program actually got me started," he stated. "It inspired me to try new things and helped me tremendously."

Now a student at the University of Maine at Presque Isle, Edgecomb continues his active participation in farming. With his brother Roger and their father, A. J. Edgecomb, he has formed a partnership to run the family farm. They have equal shares in all machinery on the 1,000-acre potato farm. — Don Watson.



Leon Calef finds that storing boats in his huge garage during the winter is a paying business.

Slumbering boats

Here's how you can cash in on an outmoded farm building.

Semi-retired Leon Calef, East Barrington, New Hampshire, turned a large, tax-gobbling garage in his front yard into a fall-to-spring storage for boats, cars, campers and trailers. The white-elephant building once housed his live-poultry-trucking firm now operated by his son John at another location nearby.

Leon Calef's substantially-built, fully enclosed garage with its concrete floor is just the thing for storage. He charges \$1.50 per foot, from front hitch to rear, for any vehicle or boat. Average boat storage costs \$25 to \$30 from the end of boating season to May 1.

American Agriculturist, October, 1972

In trying to find some way to make his vacant building pay, Calef placed a classified ad in the local paper and was in business. First-year business was so brisk that more than 20 boats, a car, campers, and even a small house trailer, were stored on the ground floor. Now prospective customers call in a year ahead for storage space. Calef intends to either add a second floor or a cradle arrangement to double the storage capacity.

What happens during the spring rush when somebody wants a boat in the back row? "That's my son John's problem," Leon Calef promptly replies, hinting the boat will be immediately removed with the same courteous service that has kept him in the poultry trucking business since 1925. — C.L.S.

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Short

(Continued from page 16)

As long as the minimum forage needs are met, the extra nutrients required should be bought where you can get them at least cost—whether from hay, or from grain. Grain can be fed in any amount, up to the limit of appetite, once minimum forage needs are met.

Cost per ton is not a good measure to use. Buy instead on the basis of least cost per unit of feeding value (TDN or energy, and protein). Also take into account any variation in moisture level among different feeds. If you're buying water, pay water prices.

8. **Keep your options open; check all the feed alternatives.** There have been some wild reports on hay prices floating around. Hay, however, must be priced favorably with other feeds to justify its purchase. It has a "good buy" ceiling, and panic buying doesn't make sense. If grain is priced at \$80 a ton (74% net energy), the competitive price ceiling on various quality hay would be:

Excellent hay (50% net energy) — \$48 per ton; good hay (40% NE) — \$39 ton; fair hay (30% NE) — \$30 ton; poor hay (20% NE) — \$24 ton.

In roughage-short years, grain is often a better buy than hay. If grain is being used to replace nutrients normally supplied from forage, it may be wise to feed some grain at mid-day. Then cows will be more likely to eat all their regular grain ration fed at milking times.

Don't limit yourself to a single choice. Check all feed alternatives — locally-available ear corn, hominy, wheat, shelled corn, beet and citrus pulp, purchased forage. Give each alternative the cost-evaluation test.

Most feed companies include a roughage extender on their list of available mixes. These feeds blend high-fiber materials (such as oat hulls) with concentrate feed sources to produce a mix that can be used with little danger of fat depression. Like other alternatives, these extenders should be held up to the cost-evaluation yardstick.

Heavy grain feeding, whether it's to compensate for reduced roughage intake, or for poorer-quality forage, may in some cases decrease the percentage of protein needed in the grain because more is fed. Cows don't care much about percentages, but they do care about getting the pounds of protein needed to meet their production requirements.

Low hay intake, especially when it is of poor quality, may provide less calcium than regular liberal hay feeding. In this case, the mineral content of the grain ration should be upped from the normal one percent dicalcium phosphate to two percent (plus trace mineralized salt).

Fiber is as important as protein, energy, minerals and vitamins in keeping a dairy cow on track. Too little fiber is an important contributor in depressing fat test. Dairywomen should be aware that very heavy feeding of low-fiber feeds, such as shelled corn, requires that enough

fiber be supplied from other components of the ration — such as forage. Ear corn, with about 90 percent as much energy as an equivalent weight of shelled corn, contains about four times as much fiber.

9. **Cull unprofitable cows.** This may be a good year for some dairymen to cull a little heavier and move out the marginal cows. Beef prices are good, and hay prices are high. If you're short of feed, take a critical look at some of the hard breeders, the short-termers, the slow milkers, the crippled and the lame, or animals with chronic udder trouble.

A few dairywomen may wish to sell excess heifers. The price is right, and they add nothing to the milk check. But don't go overboard and sell good replacement heifers — at least not if you want to stay in the business in future years.

If you're one of those dairywomen who have been on the fence about retiring or choosing a new occupation, you may find that a critical shortage of feed will help accelerate your decision-making.

10. **Stay on top of new developments.** Keep yourself informed. Time can change the current picture. For example, some counties may be declared eligible to purchase corn and other feed grains from government stocks.

One pound of shelled corn will replace about two pounds of fair-quality hay, or six pounds of silage. During the drought years of the mid-sixties, many dairywomen learned they could feed considerable quantities of this corn without "burning out" a cow, or causing mastitis.

Your local ASCS office, or your county agent, will know if your county becomes eligible for this emergency feed program.

Cost evaluation of nutrient sources should be a continuous process. Price-value relationships change. For example, at this time of writing (September 1), prices of beet and citrus pulp are not especially attractive. But perhaps after harvest and processing of this year's crop, they may look better.

Make use of your feed service representative or Extension dairy agent to help you develop a balanced feeding program. And occasionally give your cows the "protein test." Feed some of your animals that are in the first half of their lactation two or three pounds of straight soybean meal for a few days, in addition to their regular grain ration. If they were protein short, they'll respond with more milk in a few days. If they don't, you must have been already supplying their protein needs.

Many things still unknown — '72 crop yields, harvest conditions, export demands — can affect prices of feeds. Grain handlers predict their sales to Russia may approach one billion dollars. How much, if any, of that export will be soybeans is purely speculative. Dairywomen can do little to affect these variables.

But good managers will be alert to changing relationships in the cost of different sources of nutrients, and will continue to hunt for the "best buys" per unit of protein and energy.

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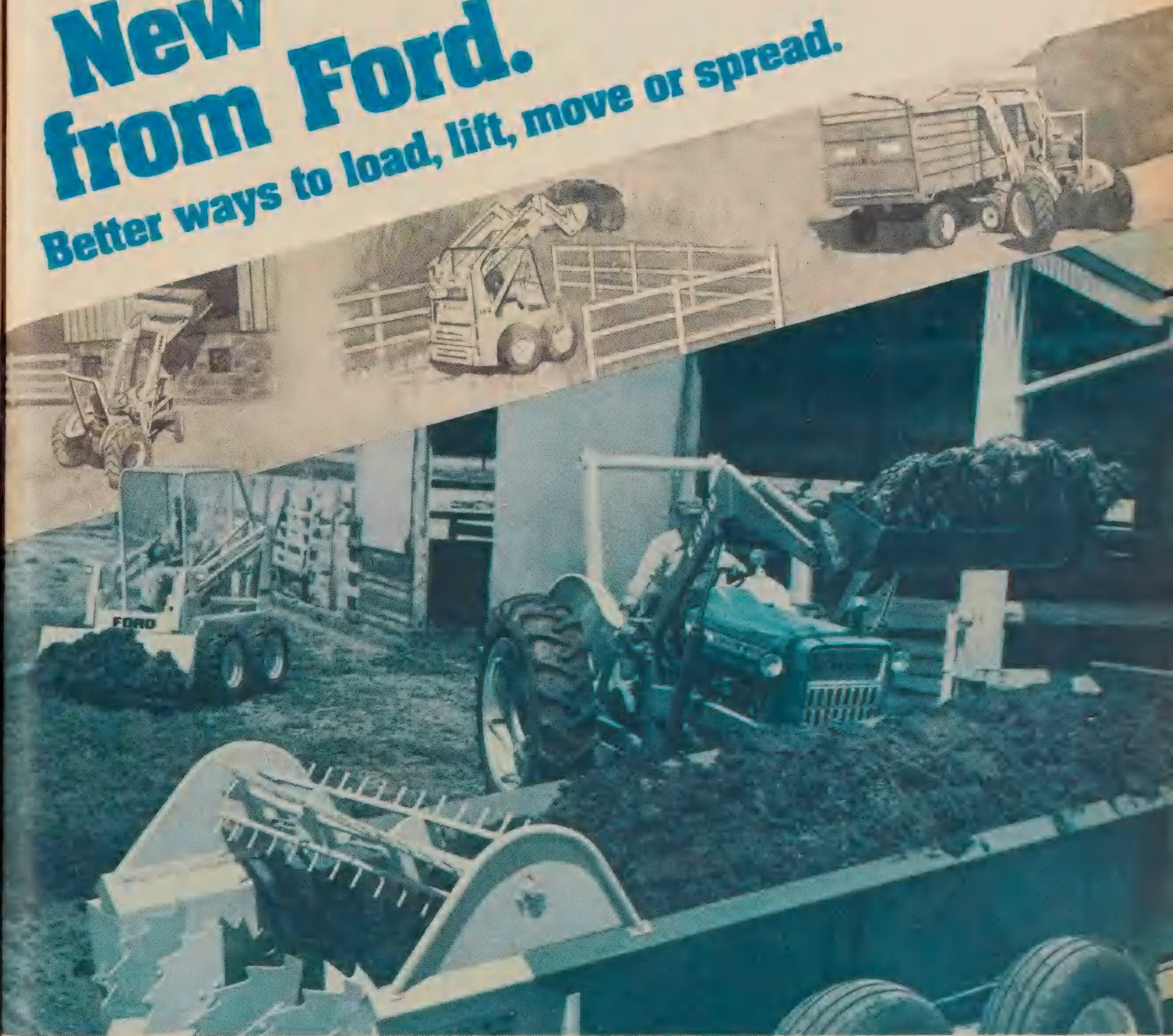


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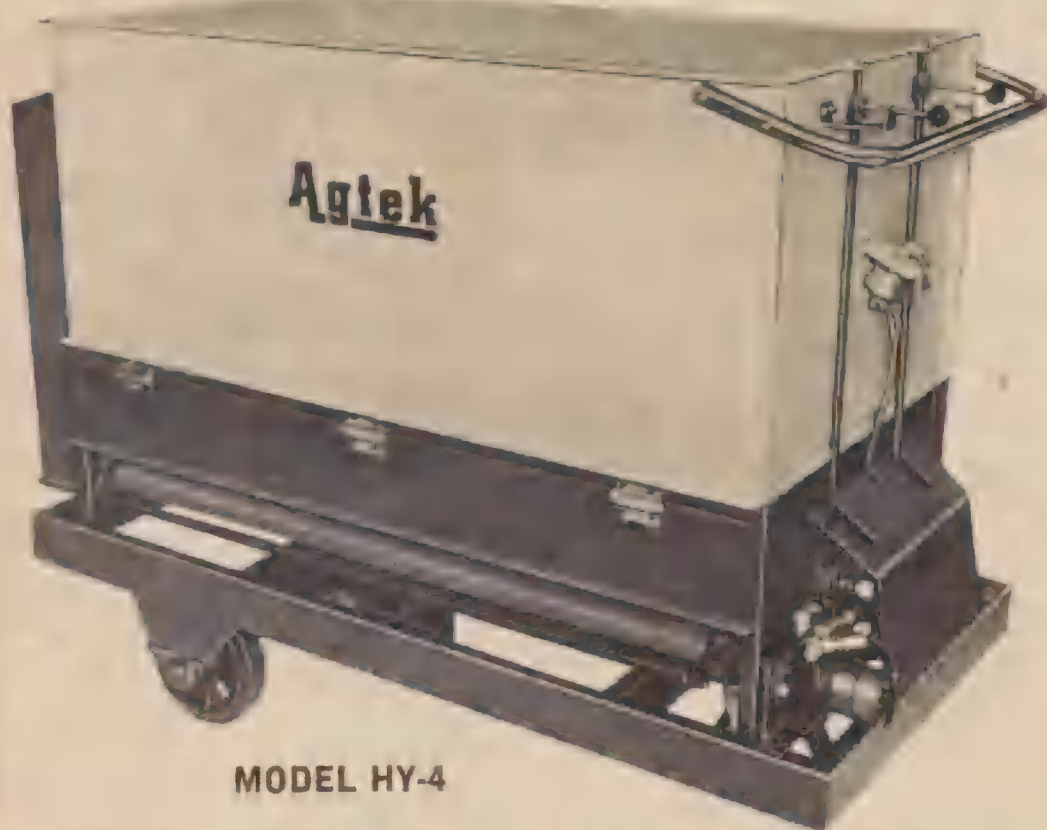
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Butz

(Continued from page 20)

Northeast, the eastern railroads need to improve their service by offering quicker, less erratic transit time, more cars, and better protection of the product.

Does the Northeast still "own" some status as far as sugar beet quota acreage is concerned?

During the 1972 crop year there were no limits placed on the amount of sugar beet acreages which could be grown in the Northeast, and there is no reason to expect 1973 to be any different.

If the Northeastern sugar-beet industry is revived, and quotas reimposed, how many quota acres will be available in New York State and Maine?

If interest in producing sugar beets in the Northeast is revived and quota acres are allocated, the quantity of the acreage for each state will depend on the base years used for the allocation. The Secretary of Agriculture has the authority to allocate sugar beet acreage. After the 1974 crop year, when the current provisions expire, the rules we will be dealing with depend on what action the Congress takes.

Is it crucial that farmers have the protection of legislation prohibiting strikes at harvest time? Organized labor appears to be terribly opposed to such legislation.

Farmers should be protected against strikes at harvest time. Legislation should require advance notice of any intent to strike and should provide for arbitration in the event that the parties cannot get together on their own. The Administration has a bill along these lines.

What is your position concerning the secondary boycott as a means of organizing farm workers?

The secondary boycott is a bad device. It is illegal for those areas

where collective bargaining is authorized, and would become illegal in agriculture if collective bargaining were extended to cover hired agricultural labor.

In New York State, non-agricultural employers must help finance strikes against them through contributions to unemployment insurance . . . which is available to strikers after a waiting period. This may be the case for agricultural workers in the future. In your opinion, should strikers be eligible for unemployment insurance benefits?

No. I am against paying people unemployment insurance if they are on strike. That, in effect, is a government subsidy for striking. Labor disputes are matters which the workers, unions, and businesses should work out themselves.

The Northeast suffered a history-making flood in some areas in 1972 . . . and crops in general over the entire region are reduced in quality and quantity. To what extent, and under what conditions, are CCC grains available to northeastern livestock owners?

As soon as we were able to get a good look at the effects of tropical storm Agnes, we offered government-owned feed grains at no cost to eligible farmers in the hardest-hit counties in New York. We followed this with the Emergency Livestock Feed Program, which let eligible livestock owners buy government-owned feed grains at a low cost.

Farmers in several counties in New York and Pennsylvania who were short of feed, and short on cash or credit, were eligible for assistance. Our county and state ASC officials, as well as Washington-based ASCS officials, have been responding to the needs of these livestock owners. Any livestock owners who believe they qualify for emergency assistance can stop off at their ASC county office for details.



Here are some of the folks who attended the summer meeting of the American Institute of Cooperation at Ames, Iowa. All are from New York State, unless otherwise indicated. They include (l. to r.):

Front row: Carolyn Simack, Phelps; Sara Keller, Palatine Bridge; Laura Vanderbosch, Cattaraugus; Sandy Holmes, Hudson; Christine Hilfiker, Holley; Judith Nedrow, Clifton Springs; Donna Brown, Syracuse.

Back row: Albert Celecki, Syracuse; Ric Lamb, Hamilton; Joe Partyka, South Dayton; Wesley Coots, Hornell; Richard Smith, Canajoharie; Gene Hubbard, Montrose, Pennsylvania; George Keller, Palatine Bridge.

Floods

(Continued from page 18)

take care of the flood victims.

Alfred Lescover:

I have been on this dairy farm for 30 years, and my wife has been here all her life. We bought the farm from her father 12 years ago; he has been here for 60 years and is now 90 years old.

We have 60 head of cattle, including 36 milking cows, plus two or three beef cattle which we raise for a hobby and for our own meat supply. We have about 125 acres, mostly under cultivation, and lease about 30 more.

On Thursday, June 22, water from the Chemung River, which is about one mile from us, began to come up over the fields. We heard the water was quite high in Hornell and that a six-foot wall of water was coming down the river, but were told the water would taper off by the time it reached us.

However, by six that evening, water began to come into the buildings. We moved our cars to higher ground, but left the pickup as a means of transportation in the event of an emergency. At that time, the water was up to six feet deep in the fields.

Radio reports continued to say not to worry. In the barn, the water was holding its own, at a point just below the cows' stomachs, until suddenly, it was up to my armpits. We held off until 5:30 in the morning on the chance the water might recede. With the help of my hired man and a neighbor, who came over in a canoe, we turned the cows loose out the north end of the barn, thinking they would head toward high ground around the Big Flats Corning Glass Works.

Instead, they floated around the barn and knocked in the door through which they are accustomed to coming into the barn. The waves were clear to the ceiling, and the cows were swimming around us, diving over one another. I have a heart condition and had been having chest pains for about half an hour. When I saw the cows come floating back into the barn, I started after them to head them off. Apparently, about halfway across the barn, I went into a state of shock and went under the water. Somehow, my neighbor and his friend managed to pull all 210 pounds of me into their canoe. I was eventually taken to the hospital.

A group of men used a chain saw to saw a big hole over one door in the barn where the water was eight feet deep. They went into the barn in boats, along with two scuba divers, and put ropes around the cows and took them out of the barn to high ground a quarter of a mile away.

Tired and waterlogged, the cows couldn't even stand up, so the men worked over them with towels and blankets to revive them, then dispersed them to farms throughout the county. Each farmer took a cow or two and nursed them back to health.

Just yesterday, I spoke to a fireman who said he never saw such an all-out effort to save a bunch of animals. A lot of the people who risked their lives by going into the barn weren't even farmers.

Eight milking cows, one bred heifer, and a beef animal drowned. Two of the cows lost were my highest producers in a herd that runs 15,000 milk and 550 fat.

After I was released from the hospital, I returned to look at the barn and found a large crew of farmers . . . some I didn't even know . . . who had come from throughout the county to clean my barn. Since then, we have also repaired the structural damage and our animals have been returned.

I plowed up 20 acres of ruined corn to put the land into Sudax so I will have something to put in the silos. Some corn in one of our two silos was not ruined and has been used. I've bought some hay, and some has been given to me.

I had partial insurance on my cattle and will probably be able to claim the difference as a tax loss. I also had insurance on my machinery, which was totally covered with water. The pickup truck we left behind was completely ruined, but replaced by insurance. Our tractors and harvesting equipment are in one stage or another of repair.

We have thought about calling it quits and retiring, but we just couldn't do that, not after everyone pitched in and helped us to recover.

We are going to stay and hope, should there be another flood, we won't be around to know about it. It was a hard decision to make. I am 57 and my wife is 61. At that age, it's difficult to begin anew. But our hired hand, who was planning to

retire, has been working seven days a week since the flood and has offered to stay with us until we get on our feet. He is 65 and has been with us for 20 years.

We did receive 10 tons of oats and 5 tons of corn from the government, but haven't used it yet. It's the first time I've taken something without paying for it, and I feel guilty about using it. Even though we had losses of about \$85,000, we've been fortunate in the past and are prepared to work and trust to the Lord.

We have thought a lot about the problem and even shed some tears. But we are both Christian. We know the things you can build on this earth can be destroyed, but we have a home in heaven no one can destroy for us.



Bob Jensen
Jensen Bros. Farms
Seneca Castle, N.Y.

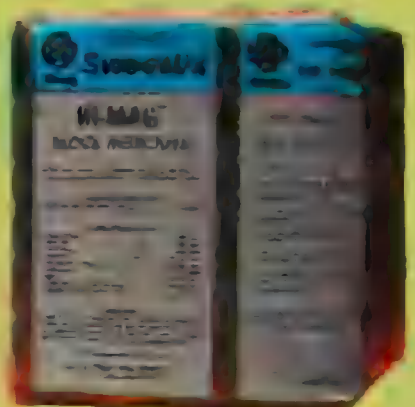
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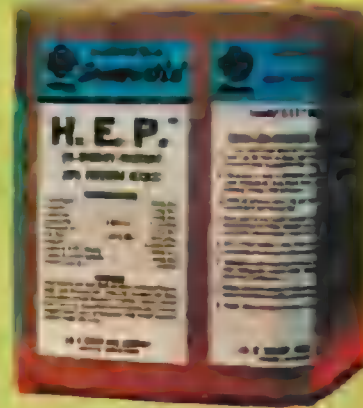


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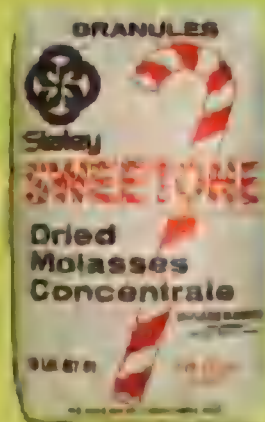
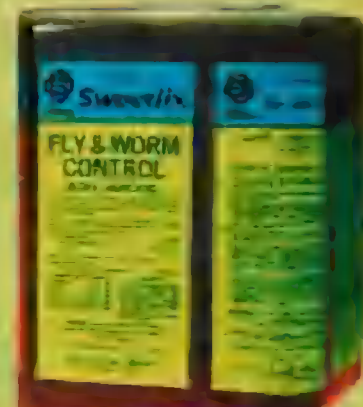
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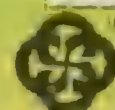
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Doc Mettler comments on:

Preparing for emergencies

THE deer have lost their red summer color early this year, and yet the blueberries and elderberries were late. This contradiction of nature must make predicting the earliness or lateness of winter's arrival more difficult for those who depend on such signs as guideposts in their prophecies. To me, it's just one more thing that's interesting, but that we can't do much about . . . except be prepared for the winter bound to come sooner or later.

The experienced cowman with a cow ready to freshen can usually tell by the signs if she is ready to calve and if everything is normal. Every once in a while, however, nature throws us a real puzzler that can't be solved until a complete examination is made.

The experienced cowman prepares himself for these emergencies by learning all he can, and by working on a herd-health program with a veterinarian who can help him out when the going gets tough. When things get too tough for the veterinarian, he too may have to call on a colleague to help him out.

Sick Cow

One day in mid-June, I came in late for dinner and found a message to stop either that evening or the next morning to look at a cow fresh three days that was "not just right." The owner, not overly concerned, had said her udder was normal and she did not act like milk fever, but she was down on production and her eye did not look good. Even though she had eaten normally that night, he decided to call so we could find out what was going on.

After dinner, I had to go near that farm for another reason and decided to stop then instead of waiting until morning. The cow stood chewing her cud with no apparent sign of being off . . . except perhaps her eye was a little sunken, and her udder a little slack for a fresh cow.

The owner had brought her, and another cow close to freshening, in from the pasture on a Friday. When he put her in the barn, he could not bump a calf . . . so concluded she had already calved.

He went to look for the calf, but could not find it in the pasture. She gave a normal amount of milk the next morning, but when he turned her out with the rest of the herd, she kept coming back to the barn bellowing like a cow looking for her calf.

No Calf

He looked again for the calf, could not find it, turned the cow into the dry lot, and again she stood by the gate calling for her calf as if it were back at the barn. By Monday she was milking well, but suddenly Tuesday evening her udder appeared slack, though she still ate normally.

Her temperature was 104.8 and her pulse was over 100; yet as I



calf in a posterior presentation (rear feet first).

To make matters worse, one of the calf's feet had pushed through the roof of the uterus just ahead of the cervix. Even if I could straighten the calf out, there would still be the hole to suture, and chances were great that it would rip larger during manipulation. Suturing a hole in the uterus without opening the cow is almost impossible. A cesarian was the only answer.

The time was already 10 p.m. I hated the thought of doing the cesarian alone, but just as much disliked bothering one of my colleagues for help this late in the evening. A phone call brought a sleepy "Dr. Jones' residence" (not his real name).

Already I felt better. When I explained the situation, the sleepiness left the young veterinarian's voice and he became decisive and in full command. "Get her clipped and prepped, I'll autoclave the instruments and be with you in an hour." In forty minutes, he was pulling into the barnyard.

Left Side

For a cesarian due to a large calf, the modern approach is to work from the left side on the standing animal. To operate alone, the left side is preferred because you are dealing with only the rumen or paunch in the way, whereas on the right side you have to contend with small intestines pouring out of the incision.

In this case, we were forced to the right side because of the difficulty caused by the torsion. A torsion is when the uterus, calf and all, becomes twisted, causing a cording of the exit to the uterus, much as if you put the calf in a grain bag and twisted the neck of the bag closed.

Dr. Jones had learned to do cesarians on ewes at veterinary college and had been well grounded in surgical technique. Besides this, he had done many cesarians on Angus show heifers and various dairy animals in his practice area. Watching his businesslike manner of approach left no question about his competence.

The only actual cutting is through the skin and the uterine wall. Other tissues are broken down by blunt

dissection, the muscles being split lengthwise. In this way, when the operation is over the muscle wall of the belly pulls back together with little problem.

Dead Calf

In this case, the calf was dead . . . though, despite the history of apparent delay, I doubt if it had been dead more than a few hours. A dead calf is harder to remove during a cesarian than a live calf because it compresses and manipulates with more difficulty.

Even before reaching the calf, I was glad I had asked for help. Two hands were just not enough for a right-side approach, and as I mentioned, a left side approach would have been almost impossible.

After removing the calf, the incision in the uterus was sutured and it was returned to its normal position; that is, the torsion was relieved. Before closing the abdominal incision, Dr. Jones directed me to examine the cow through the vagina to make sure the original tear had been repaired as part of the surgical incision. To our discouragement, we found it was still there.

Team Work

Here, too, four hands were better than two, or perhaps I should say one hand each from two veterinarians can do things in a situation like this that are difficult for one man to do alone. I could reach the tear from the inside by reaching through the vagina with my right hand and

guide his hand and the needle as he reached in through the abdominal incision. If this sound awkward, it is, but to get both hands through to suture from either end would have been impossible.

The uterus was packed with antibiotics, the abdominal incision closed, and oxytocin given to contract the uterus. Calcium, fluid and more antibiotics were given.

Twenty minutes after midnight, we were washing our boots outside the milkhous. I again apologized to Dr. Jones for calling for help so late. He grinned and said, "This might sound screwy, but I like this part of veterinary medicine!"

Tough Going

I have known this young man all his life, and knew for years of his desire to become a veterinarian. On the way home, I thought of his remark, thought about how he had spent eight years longer in school than most people, and how he had been up since five the morning before and would probably be back in bed but a few hours before the phone would ring again.

I decided then that I would try to not only relay the story of the cesarian, but of this veterinarian as well . . . not as an exception, but as a general rule throughout the cattle areas of the United States and Canada.

You can help to insure that more veterinarians of this type stay in practice by cooperating with them in their attempts to help you prevent disease in your herds. You can help by placing calls early in the day and planning ahead. You can help by keeping good records and furnishing good help when the veterinarian arrives.

Back to Normal

The next morning after the cesarian, the cow ate her normal amount of grain and acted no different than any other fresh cow. The fifth milking after the operation she gave 24 pounds of milk . . . and when the tester arrived just four weeks after the surgery, she milked 62 pounds for the test day.

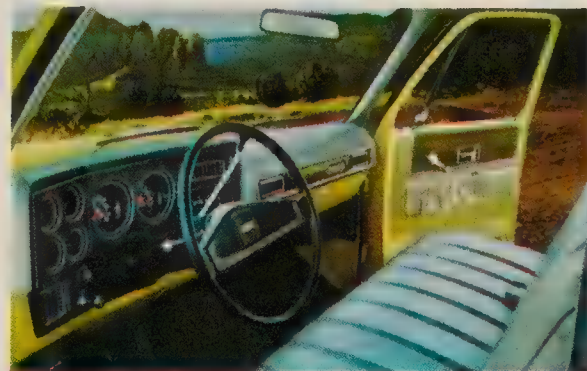
Today she looks good, is still milking good and shows no mark on the outside. There are adhesions on the inside that may interfere with breeding, but at the present beef price, that is a lot better than a cow on the rendering-plant truck . . . which is where she would have been without the cesarian.

If you stay in the cow business long enough, someday you are going to have a cow in need of a cesarian. When this happens, if you have already been working with a veterinarian on a herd-health program, it will probably turn out as well, or better, than this one.



"I was so nervous coming over here my hands were shaking . . . it's a good thing my wife was driving!"

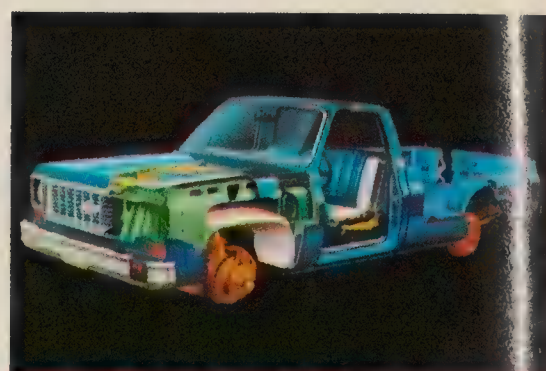
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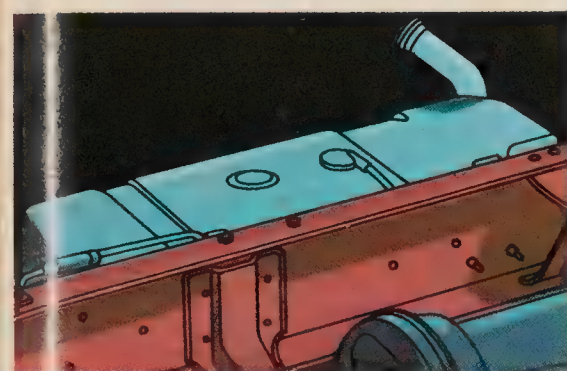
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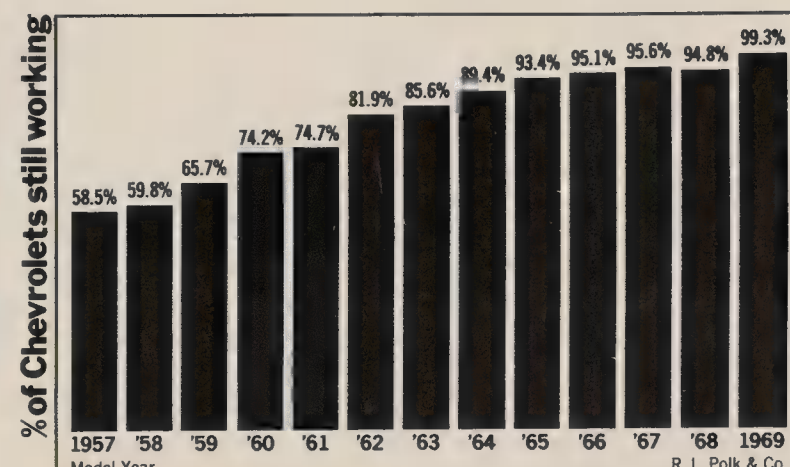
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snowmobiles '73

A preview of models from

Below, right, **JOHN DEERE** introduces its JDX series with the JDX8, a 438 cc rig, and the JDX4 with a 292 cc power plant. Other models include the 400, 500 and 600, ranging from 339 to 436 cc.

Below, **SNO-JET** has trimmed models to seven, but adds the Whisper Jet 440 (shown) to the lineup. Other engine options include 292, 338 and 433 cc machines in the StarJet series; 295, 340 and 440 cc in the SST series.



Left, **POLARIS** offers a choice of 175, 244 or 249 cc Star Twins in the Colt series; 294 and 335 cc Colt S/S 340; three models in the Charger series, plus two Mustangs. All have hydraulic disc-automatic brakes.



Above, **SCORPION** announces a wide choice of color and engine sizes for '73. Models are available in red metal fleck, magenta fleck, plus yellow and white. Engines range from 290 to 440 cc (shown).



Above, **SKI-DOO's** '73 line includes seven series and more than 20 models. The lower-priced Elan and Olympique (shown) have been expanded with more models and new features, including Bombardier-Rotax twin-cylinder engines.

Below, **LEISURE VEHICLES, INC.** introduces two new Raider machines—the 34TT and the 44TT. They feature twin tracks, rear engine, a "cockpit" and "car-like" steering. Engine sizes are 398 and 436 cc.



Left, **ARCTIC CAT** combines four models of the El Tigre series with the Panther, Cheetah (shown), Puma and Lynx for a more complete line. Engine options range from 250 to 440 cc, plus the Kitty Cat, a 60 cc kid-sized rig.



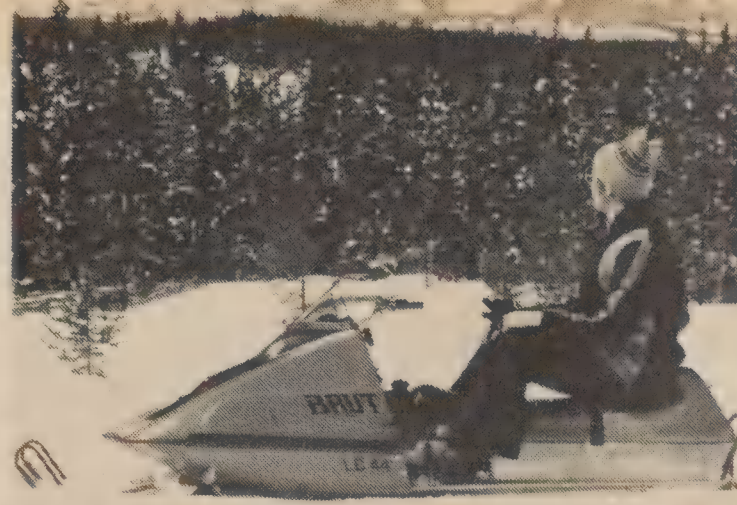
MERCURY MARINE offers four models using basic 440 and 644 cc two-cylinder engines. Topping the line is the Hurricane Mark II. Stablemates include a companion 644 cc Hurricane Mark I, a family machine, and the 440 MAX.

Above, left, **RUPP** features a line of 11 models in three series—the Nitro, American and Sport. A new Rupp item: a capacitor discharge ignition with surface gap spark plugs for quicker starts. Engine sizes range from 294 to 438 cc.



Left, **MASSEY-FERGUSON's** 400 WT Ski-Whiz is one of six '73 models. They include 400 and 440 wide-tracks, plus four 15" narrow track machines, with engines ranging from 292 to 440 cc. All have a completely new look.

22 companies



Top, left, **MOTO-SKI**, purchased by SKI-DOO in 1971, has a new look, including the S440 (shown) and S400. The company's "F" series include 295, 340 and 400 cc machines.

Above, **YAMAHA** offers 11 models, including the SL292C, for 1973. Options include quick-change gears, hydraulic-torque converter, tachometers and air intake noise suppressors.



Top, **COLUMBIA** introduces a complete new line of 12 models, with engine options including 340 cc, 400 cc and 440 cc twin-cylinder units. Chassis are all-steel, unitized frames.

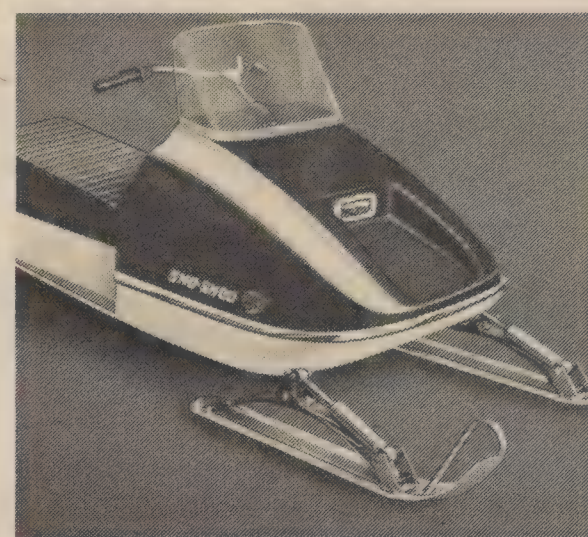
Above, **SUZUKI** has engineered three new models, including the XR-440, plus the one-cylinder 292 and two-cylinder 340 in the Nomad series. The XR-400 has been modified for 1973.

Above, **BRUTANZA** claims to break snowmobile tradition by equipping its Brut LC44 (shown) and LC29 models with Brooten liquid-cooled engines. The two-cycle power plants have thermostatically-controlled, full-bypass liquid cooling systems.

Right, **CHAPARRAL** charges into the new year with three basic models—Firebird (shown), Thunderbird and SS/III, in a range of engines from 242 cc in the smallest Firebird to a 440 cc with CDI ignition in the 440 SS/III.



Above, **SNO-COUPPE** announces several design and engineering changes to update the Executive and Ranger models (with sliding canopy tops and side-by-side seating) and a new topless model tagged the Sportster. Standard engines are 436 cc; options include a 744 cc power source.

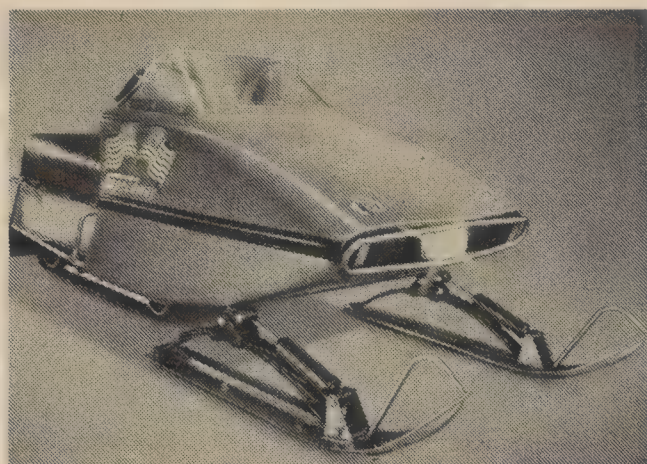


Left, **T & T INDUSTRIES** offers four new '73 Sno-Shoo snowmobiles, in 340 cc and 440 cc sizes. Two are Scorcher models, shown; the other pair features high back seats and rear-mounted gas tanks.



Above, **HARLEY-DAVIDSON** hits the 1973 market with a 398 cc Model 398 and the 433 cc Model 440. Both have Harley-Davidson 2-stroke engines, 18" tracks and reinforced fiberglass bodies.

Above, left, **ALLOUETTE** features ten models, ranging in engine size from 209 cc to the 436 cc Sno-Brute 440, shown. The Sno-Brute features Ski-Sorber front suspension and Trail-Rider slide-rail suspension.



SPEEDWAY announces three models in its "Blue Max" series, including 340, 440 and 650 cc engine sizes. Each features free-air engines, aircraft aluminum frames and several new safety features.



Left, **AUTO-SKI** enters '73 with five models, ranging in engine size from 225 cc to 650 cc. They all have air-cooled, two-cycle engines, with 25% less noise, aluminum chassis and feature new multi-wheel slide suspension.

The code of ethics for snowmobilers*

1. I will be a good sportsman. I recognize that people judge all snowmobile owners by my actions. I will use my influence with other snowmobile owners to promote sportsmanlike conduct.
2. I will not litter trails or camping areas. I will not pollute streams or lakes.
3. I will not damage living trees, shrubs or other natural features.
4. I will respect other people's property and rights.
5. I will lend a helping hand when I see someone in distress.
6. I will make myself and my vehicle available to assist search and rescue parties.
7. I will not interfere with or harass hikers, skiers, snowshoers, ice fishermen or other winter sportsmen. I will respect their rights to enjoy our recreation facilities.
8. I will know and obey all federal, state, provincial and local rules and laws regulating the operation of snowmobiles in areas where I use my vehicle.
9. I will not harass wildlife. I will avoid areas posted for the protection or feeding of wildlife.
10. I will travel cross country only in authorized areas.

*From "Play Safe," published by Bombardier Limited, with assistance of The National Safety Council.

Agricultural districts

THE most recent areas officially designated as Agricultural Districts in New York State are located in:

Chautauqua County — 13,000 acres in the Town of Westfield. This area is an example of land which is "unique and irreplaceable" for agriculture. All 161 farms in the district produce grapes for which the area is famous. The district lies on the Lake Erie Plain.

Ontario County — 5,300 acres in the Town of Canandaigua. This district, just west of Canandaigua Lake and southwest of the city of Canandaigua, is comprised of large, gently rolling fields ideal for dairy farming. The area is still primarily rural, and agriculture makes an important contribution to the local economy.

Dutchess County — 4,500 acres in the Town of Amenia. This district in the Oblong Valley, along the Connecticut border, is a good dairy farming area with several large farms. The district is very much rural-oriented, with agriculture important to the area's economy. Milk produced in the district is marketed in New England.

Niagara County — 1,765 acres in the Town of Wilson. There are two sections in the district near Lake Ontario. One section is devoted primarily to fruit, the other to grains and field crops for dairy farming. Its proximity to Lake Ontario makes

this area one of the most favorable in the country for the production of deciduous fruits and grapes.

Washington County — 712 acres in the Town of Greenwich. This is a small but viable dairy farming region just south of Cossayuna Lake.

Two other agricultural districts were approved earlier this year, one in Schoharie County (about 5,000 acres), and the other in Allegany County (about 700 acres).

Creation of Agricultural Districts was made possible by legislation enacted in 1971 and signed by Governor Rockefeller to protect and enhance agricultural land as a viable segment of the State's economy and as economic and environmental resources of major importance.

Advantages

Creation of an Agricultural District offers farms several important advantages, including:

—local regulations that unreasonably restrict farming in a District are limited;

—policies of State agencies are to reflect the importance of farming in Agricultural Districts;

—the exercise of eminent domain and the advance of public funds for functions that would facilitate non-farm uses with an Agricultural District must be specifically reviewed prior to action;

—the power of certain public service districts to impose benefit assessments or special district (ad valorem) levies is limited;

—most land within an Agricultural District will be eligible for an agricultural value assessment upon landowner application.

An Agricultural District is created in six steps. Approval by the Commissioner of Environmental Conservation is the fifth step; the final step is local.

Early Steps

Earlier steps in the formation of a District include application by landowners, referral by the county legislative body to local study groups, a public hearing and approval of the planned District by the county legislative body. When these steps have been completed, the proposed District is submitted to the Commissioner of Environmental Conservation.

As required by law, the Commissioner, before acting, submits the plans to two other State agencies for their specialized examination. The Agricultural Resources Commission must determine that a proposed District consists predominantly of viable agricultural land. The director of the Office of Planning Services must determine that the districting of the area would not be inconsistent with State comprehensive plans, policies and objectives.

Five additional Agricultural Districts have been submitted to the Commissioner of Environmental Conservation for certification, and are at varying stages in process. In

addition, several more are still being worked at the county level, prior to their submission to the Commissioner.

ALL ABOUT MUSHROOMS

"Mushroom Growing and the Mushroom Industry," an illustrated manual covering every aspect of growing, harvesting, processing and marketing this fascinating crop, is now available. To get a copy, send \$1 to: American Mushroom Institute, P. O. Box 373, Kennett Square, Pennsylvania 19348.



Mike Jolin, Box 952, Lancaster, Ohio 43130, has developed a new circular-core, wax impregnated beehive that can be put together by a novice beekeeper. He developed it to aid the do-it-yourselfers who want to keep a hive of bees for reasonable-cost honey, and for the enjoyment of beekeeping.

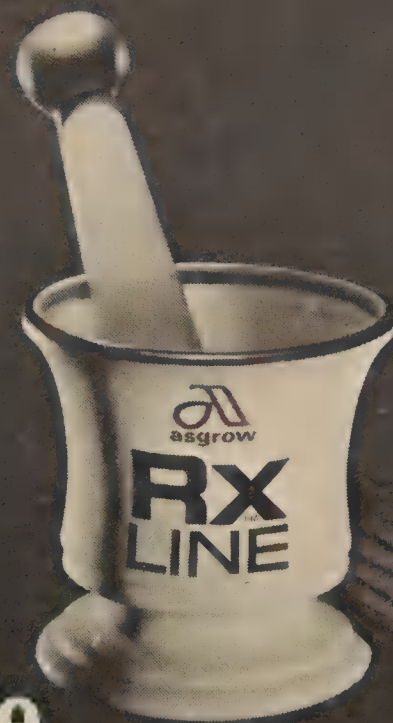


New Asgrow RX Line of Hybrid Field Corn—now available from Seneca Seed Salesmen



Seneca Seeds Salesmen, representing Robson Quality Seeds, Inc., are the new exclusive distributors of the Asgrow RX line of hybrid field corn in the Northeastern States, plus the full line of Seneca Field Seeds.

Contact the Seneca Seeds Salesman in your area. He will show you the recommended varieties of Asgrow RX Hybrid field corn and show you how to get top performance with Seneca legumes, grasses and cereal grains.



ROBSON QUALITY SEEDS, INC.

Box F2010, Hall, New York 14463

DISTRIBUTED IN THE NORTHEAST BY ROBSON QUALITY SEEDS, INC., HALL, N. Y.

In Northern Vermont by Lawrence D. Oliver Seed Co., Milton, Vt.

In New Hampshire by Merrimack Farmers Exchange, Concord, N. H.

In Massachusetts, Conn. and R. I. by Farm Bureau Association, Waltham, Mass.



Here are 3 big reasons why you should vote for President Nixon.

1. Farm Income.

It's up! It will reach a record high of \$18 billion or more this year—22% higher than 4 years ago, and 43% higher than 8 years ago. This is real progress—and there is more to come.

2. Earl Butz.

There's a difference between just being for farmers and *fighting* for farmers. Butz fights. He pushes for new markets and higher income for farmers. He battles those who would tie the hands of farmers. And he doesn't care about what his enemies say. In short, nobody bullies Butz!

3. President Nixon Himself.

This is a man with a "feel" for America's farmers. He knows they haven't gotten their full share of America's prosperity, and has worked hard on that problem. He opened up new markets for farm products. He took many restrictions off the backs of farmers. He named Earl Butz Secretary of Agriculture. And today farmers know they have a friend in the White House.

Of course, there are lots of other reasons why farmers should vote for President Nixon: An expanding agriculture . . . fewer farmers leaving farming . . . more economic activity in rural areas . . . and the promise of more progress to come.

But the 3 big reasons are Farm Income, Earl Butz, and *President Nixon himself!*

President Nixon. Now more than ever.

Another preservative

Most of the articles you see about storing high-moisture corn involve some mention of the use of organic acids (propionic and/or acetic). These acids, when properly dispersed throughout the grain, will prevent the development of molds . . . and permit the storage of high-moisture grain almost anywhere under cover.

Dr. Edward Czarnetzky, director of research for the International Stock Food Corporation of Waverly, New York, sounds a note of caution, however. He points to the corrosive-

ness of the organic acids, and reports on considerable ISF research along another route . . . that of finding non-toxic food-grade chemical additives that will encourage the normal fermentation of corn silage, high moisture corn, and haylage so that extra propionic acid is thereby formed within the mass of material being preserved.

The fermentation-control materials developed by ISF, he reports, have been field tested for 12 years . . . in structures ranging from glass-lined to

trench silos. He reports positive results in terms of low levels of spoilage and high palatability. He points out that fermentation-control substances have long been widely used in the manufacture of alcohol, acetic acid, antibiotics, etc., but that ISF's "Silo Guard" is such a substance in use for the preservation of silages and high-moisture corn.

This concept is somewhat similar to the inoculation of legumes, rendering them thereby able to "fix" their own nitrogen . . . in contrast to adding all the nitrogen in the fertilizer form. A fermentation-managing substance seeks to encourage the development of a desired additive in such a way that silages will be preserved by "stewing in their own juice."



Quick-Cool — Dairymen having larger herds are increasingly interested in quick-cool systems for milk. As herd size increases, rate of milk flow to the milk cooling system also increases.

Problems can then develop . . . for instance, blend temperature of milk in the bulk tank can climb more than desirable when warm milk is added to that already cooled. An overloaded bulk cooler can result in undesirably-long milk agitation.

Units are on the market to quick-cool milk on its way from cow to holding tank. De Laval, for instance, manufactures a pre-cooling system, and an instant-cool arrangement.

The pre-cooler uses well water to cool warm milk to within five degrees of the water temperature . . . then discharges the milk into a refrigerated bulk tank for further cooling. The instant-cooling system uses a plate cooler that drops the milk's temperature to 38 degrees in seconds. With this system, ice water flows on one side of a plate, warm milk in a thin sheet on the other side.

Agway is marketing a Feldmeir multi-tube heat exchanger. Seven stainless-steel milk tubes surrounded by ice water cool the milk from 98 degrees to 34 degrees in 21 seconds.

Other companies are also in the business of making quick-cool equipment for dairymen. It all adds up to an even better quality food product on the tables of American families!

Manure Storage — Regional dairy specialist Francis Mentzer reports that Whittier Farms, Inc. of Sutton, Massachusetts, has been using manure storage structures for several years. The concrete-floored storage is 30x36 feet, with walls five feet high.

A raised "berm" (or crown) across the open end prevents water runoff into the storage, and a one-foot slope from front to rear helps prevent liquid from the storage getting out.

Walls are 10 inches thick and have 3/8-inch rods every foot in each direction. The Whittiers plan a roof over the concrete structure . . . because snow and rain render manure so fluid it cannot be piled.

It will hold an accumulation of manure from a cleaning period of three to four weeks. A small tractor, equipped with both a scraper blade and bucket, pushes manure into the storage area.

REFORESTING

As he looks back along the row he does not see the little trees. Instead, he sees the pines of years to come.

Beneath them, where the sun and wind weave patterns, children play. For them—the children of that distant day—

He dons his mud-stained garb, Sinks deep the spade, And stoops to place each root and stem with care.

Thus fancy urges on his selfless toil.

Monroe Conklin

American Agriculturist, October, 1972



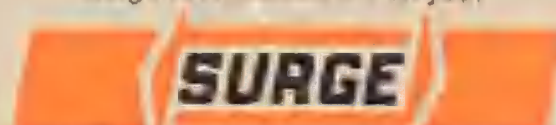
Vacuum system problems can take a top cow out of your milking herd years before you'd normally cull her. The reason?

An improperly functioning vacuum system can cause teat and udder irritation—opening the door to mastitis. If mastitis is already present, vacuum problems can aggravate the condition.

Mastitis causes scar tissue to form in the udder, replacing healthy, milk-producing tissues. That means lowered production—high leucocyte counts—dumping of milk from diseased animals—lost profits.

All this can happen despite careful sanitation, good milking practices, and good herd management. Vacuum problems are not always obvious. Let your Surge dealer check your vacuum system regularly. It's the ounce of prevention that could save hundreds of pounds of milk.

Surge . . . the accent is on you!



Babson Bros. Co., Oak Brook, Illinois 60521
Babson Bros. Co., (Canada) Ltd., Port Credit, Ontario

New Alamo pumps available in 20+ 40+ 60+ 75+ 100+ 200+

Less bark, more bite

A NEW leash on life for "man's best friend" . . . and a bigger financial bite from his owner . . . are in store in the Empire State if proposed legislation aimed at better control of dogs is enacted.

Major revisions in the existing dog control law (which has been in effect since 1929) are being proposed by the New York State Department of Agriculture and Markets. Among other changes, the new law would require:

1. Installation of a statewide leash law. All dogs would be confined to the owner's property, or on a leash or under full control of the owner when off the property.
2. Tattooing all dogs in the state for permanent identification. Dogs not tattooed could be seized and impounded.
3. Raising annual dog license fees to \$10.
4. Rabies vaccination of the dog before license can be issued.
5. Computerizing all information relating to dog licenses. House-to-house enumeration of dogs . . . costly and not totally effective . . . would be eliminated.

Survey

In a survey taken by the Department last year to assess public opinion about suggested new regulations, 1998 public officials . . . mayors, judges and justices, city and town clerks, police chiefs, town supervisors and others . . . received questionnaires related to dog control and dog licensing; 933 replied. In addition, 1393 householders selected at random in 14 counties were also questioned. More than half of the householders turned out to be dog owners. Presumably, many of the public officials also own dogs.

A tabulation of survey results indicates a public desire for better control of dogs and a willingness to pay higher license fees to support dog control activities. The proposed \$10 fee, however, raised some hackles. A \$6 fee was thought to be more reasonable.

The survey brought to light some telling differences of opinion between the general public and the public officials. About 18 percent of the public officials thought the cost of dog control activities should be financed from tax money instead of license fees. Only 12 percent of the householders agreed.

Local

Householders indicated (598-705) that they would like to see dog licensing turned over to local governments, which would then be free to license or not license dogs, as they see fit. Public officials were in favor (688-248) of having the state continue to administer dog licensing activities.

Both groups, however, were heavily in favor of stringent regulations having to do with trespassing or dangerous dogs, dog seizure and



impoundment, the establishment of pounds and shelters, and the appointment of dog wardens or other animal control officers.

Public hearings have been held throughout the State to permit interested citizens to comment on the new law and suggest changes. Copies of the proposed law are available from the Department of Agriculture and Markets, Albany, New York 12226.

This recently-completed footbridge was built by the Cazenovia Aggies FFA (Cazenovia, New York) at the FFA's Leadership Training Center at Oswegatchie Camp in Lewis County, New York.



SKI-DOO[®] the machine that changed winter ...has changed

Winter used to be one long wait for Spring. Then came Ski-Doo — opening up a new exciting world of Winter! That's your world mister. And Ski-Doo lets you live it four ways: on the Silver Bullet T'NT[®]; on Golden Bronze Nordic[®]; on Olympique — the series with a model for every member of your family; or, on Elan[®], the

easy-to-handle compact. We've changed our machines for '73. There's a new quiet. A new comfort. A new safety. There are dramatic changes right down the Ski-Doo line. See everything new at your Ski-Doo dealer. This year you're going to *ride*! You're going to own Winter!

OLYMPIQUE The original Ski-Doo — changed for '73. Olympique offers 6 great models—a whole family of machines for your family. New: a powerful 440 Olympique for Dad. Olympique gives you the most machine for the money.

elan Ski-Doo put power into a compact and called it Elan. This tough little performer goes anywhere the big machines go — but for a lot less money. And Elan has full share of the exciting changes on all Ski-Doo models. See it, right away!

T'NT The new Silver Bullet. Our performance machine, modeled after our famous Blizzard[®] racer. You don't just ride T'NT — you experience it. You and your Silver Bullet, become one, speeding through a white winter world. You're ahead of the pack. The envy of all. You're on T'NT!

Golden Bronze Nordic New luxury — for the man who's got it made. Nordic looks rich with its exciting new color. And Nordic rides high with a leathery tan seat comfortable as a custom saddle. There's no mistaking who you are on Nordic. You're successful.

*Trade Marks of Bombardier Limited



EYEWITNESS REPORT

We were fortunate in being able to visit Spain and Portugal a year ago on a guided tour. Last winter, we were even more fortunate in being able to visit most of the American Field Service and International Farm Youth Exchange students who had either stayed with us, or attended classes at our school system.

We were gone five-and-a-half months . . . visited 4-H clubs, youth organizations, farmers' organizations, schools and a lot of farms. We started in Japan, went to Taiwan, Hong-kong, Thailand (where we traveled with a Landrover and driver for a week's tour of the back country). Then to Singapore, on to Indonesia for three weeks, and went the length of Java on a train.

Next stop was Australia for six weeks, including a week's stay on a sheep station. We drove a rent-a-car vehicle over 3,000 miles in Australia and New Zealand, and talked to a lot of dairy and beef farmers.

Islands

We then visited Fiji for three days and drove all around the islands, and on to Hawaii and rented a car to tour three of the islands. We have pictures we'd be glad to show organizations in Central New York.

After our return to the United States, we woke one morning to the sound of a tractor plowing back of our campsite in Kansas. We agreed that at last we were home! Nowhere else in the fourteen countries we had visited in the last year would anyone have been in the fields working at daybreak!

The temples of Southeast Asia, the race courses of Australia and New Zealand, and the cathedrals and castles of Spain and Portugal were symbolic of their respective countries. So are the grain elevators and skyscrapers of the United States symbols of home to us.

To many, ours are symbols of "materialism" . . . and the others are considered symbols of religion, or a better civilization, or a more relaxed way of life. After some reflection . . . and a long first-hand look at other countries, we think our so-called materialism, combined with our capitalism, have meant more to the world than many would like to give credit.

Who provided the means to build the Friendship Highway in Thailand that opened thousands of acres of newly-created land to settlers? Where did the men and material come from to protect Australia and New Zealand from Japanese invasion in World War II? What country had the reserves and the compassion to help conquered Japan with technical and financial help so it has again become one of the industrial giants of the world?

Who liberated the Philippines and provided financial and educational assistance? Where did the money come from to finance crop

research and give agricultural know-how to the underdeveloped South-east Asia countries? What country in the world has enough feed grain to export to the world in boundless quantities, alleviating starvation and helping to raise the standard of living?

Even Russia, which scoffs at materialism and capitalism, has turned to us to provide a better living for their people. We seem to have enough wealth to open our hearts and pockets to relieve disaster and starvation wherever it occurs.

Further reflection reveals the irony that our capitalism has even provided, through public and private financing, the schools and universities where some students and professors are so roundly denouncing

"the establishment." If it were not for our concern for education, where would the dissenters find an audience and a sounding board?

After seeing at first-hand what the United States has been able to contribute to the world, we're convinced that we all ought to say "thank you" to the farmer who starts work at daybreak . . . to the blue collar worker who works his forty or more hours each week . . . and to everyone who takes part in making our country able and willing to contribute to the rest of the world.

It certainly made us appreciate our own country after seeing how the "other half" lives. — Mr. and Mrs. Richard Mandigo, Pulaski, New York 13142.

COONS OUT

We have had very good results in keeping raccoons out of our sweet corn by tying mothballs in old nylon socks to a stalk every four or five feet of row. Four or five of the moth balls per bag are enough to ward them off, and they last through the bearing season. — Charles E. Packard, Jefferson, Maine.

DOGLAUGH

I recently heard a statement, on radio, that animals have no sense of humor. I venture to claim there are exceptions, and perhaps your readers would like to share one of them.

One afternoon, my husband went to see a neighbor man, and I went along for the ride.

There was another man there with a small, fat hound dog, and they were out in the yard, talking. The hound barked a challenge to my husband as he joined them, but she quieted at her owner's reprimand. Soon her curiosity drew her to our car, where I was sitting.

I like dogs, so I opened the car door, and spoke to her. She came in, climbed up on the seat beside me, sat down, and made my acquaintance.

When her owner happened to glance up and see her, he looked very surprised, "Why Fanny! Are you going to leave me?"

I declare that the dog laughed.

To say that she laughed is the only way her reaction could be described. Her eyes laughed. She laughed all over. It was obvious that she was very pleased with the little joke, between her and her master, as she climbed down off the seat, and went back to him, laughing to herself, all the way. — Louise Murray, Jewett, New York.

HERITAGE

My grandfather staked out a parcel of land one mile north of Jeffersonville, New York, 150 years ago. He walked from Newburgh to this place in the 1820's. Earl Myers, who now lives on that parcel of land, still uses the water at the spring which gushes out where he decided to settle.

Earl has added to this parcel and now has a herd of fifty-five Holsteins. — Dr. Harvey Myers, Jeffersonville, New York.



Lucky Shoe — A horseshoe makes welding two bars end-to-end an easier job. With C-clamps, secure one end of each bar to one of the horseshoe prongs. Before tightening the C-clamps, bring the two ends of the bars together; resting on the horseshoe prongs they should match up exactly. With the bars clamped to the horseshoe, welding them to-

gether in the open space and the two prongs presents no problem.

Clay — Children's modeling clay helps you hold small parts into the solder. Press the parts into the clay; they retain the position in which you place them . . . or they can be moved into new positions in the clay, if necessary.

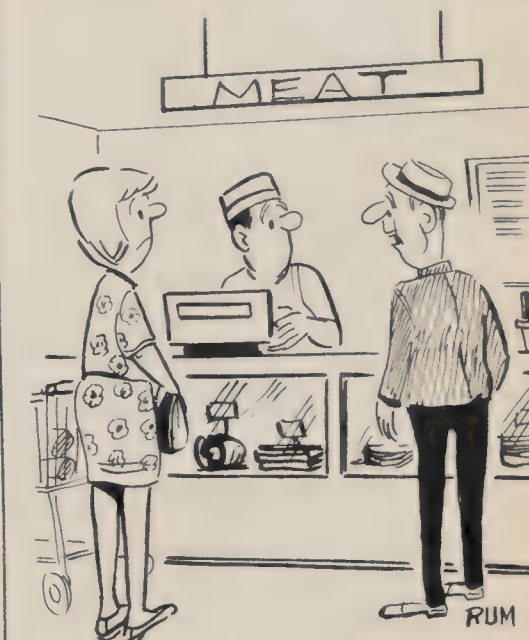
All Thread — When fastening fixtures to thin cabinet material (such as plywood or hardboard), use sheet-metal screws. A sheet-metal screw holds tighter to thin material because its threads run all the way to the screw head.

Heated — Caulking compound penetrates deeper, giving a better bond, if it is applied when warm. A tube or can of the compound may be warmed in a few minutes by placing it in a pan of water set on the stove. A tube with paper or cardboard covering should first be placed in a plastic bag to keep it from getting wet.

Big Band — A rubber band cut from an old inner tube makes a good protective cover for a flat file. Cut the band wider than the file's widest point, and cut a 1/4-inch hole through the center of the band at any point. Put the file's tang through the hole and stretch the band down over the other end of the file. Both sides of the file remain protected by the cover.

Headlock — Learn to start a nail into wood by holding the nail near its head, rather than near its point. The first blow of the hammer is much less likely to cause the nail to slip . . . but, if it does, your thumb and finger will be pushed aside by the downward swinging hammer and not caught between hammer and wood.

Fireplaces — "The Book of Successful Fireplaces—How to Build, Decorate and Use Them," was for 50 years a standard reference for architects, builders and homeowners. Although long out of print, the book has now been revived, revised and updated in a new 19th edition to include all modern developments, and present every aspect of fireplacing. Hard cover, 104 pages, 16 in full color. Price per copy \$6.95, plus 85 cents postage and handling. Send check or money order to: Structures Publishing Company, P. O. Box 423, Farmington, Michigan 48024.



"I see my beef is up another ten cents! Keep up the good work."



© 1972 Arctic Enterprises, Inc., Thief River Falls, Minnesota 56701

The first time around, a lot of snowmobilers bought on price. Period.

But, now it's a different story. Because now they know what

they should have been looking for in the first place. And they're finding it all in the Arctic Cat.

The slide rail suspension; the torsion spring suspension

system; the riveted aluminum chassis; the low, forward-mounted engine; the fiberglass hood; and more.

And this year that include

higher density foam cushions; and even stronger, more flexible track with staggered cleats; and new single-leaf tapered springs.

The other sleds have some

of it. But only an Arctic Cat's got it all. The look and feel and comfort and ride that tell you why— they're all comin' over to Cat.

Come on along.

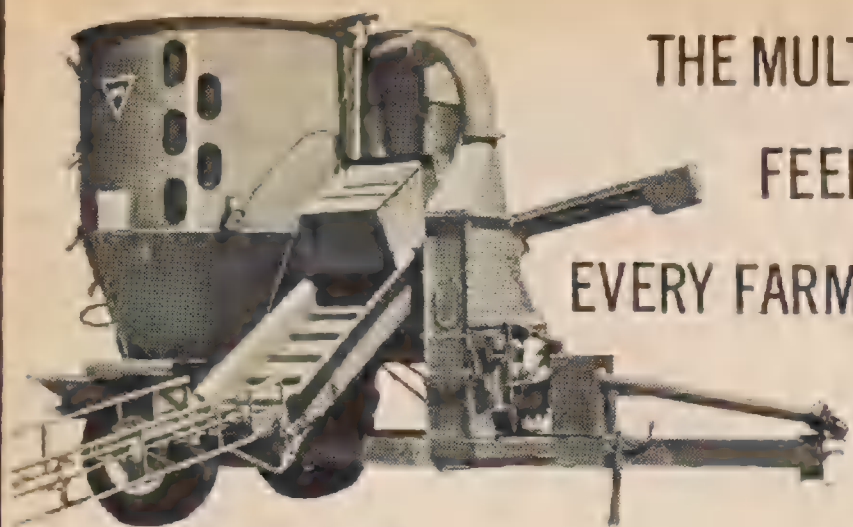
the Cat

They're all comin' over

BHL



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THE MULTI-PURPOSE FEEDMAKER EVERY FARMER WANTS!



Grinder-Mixer

95 and 130 bu.

New Model 888, equipped with a knife type hammermill, has HYDRAULIC powered Augers and Feeder with WHOLE BALE SHREDDER. Electronic Weigh Scale available. Convertible to REDUCER-BLOWER for filling structures up to 90 feet high.

GRAIN or ROUGHAGE, green, wet or dried, makes no difference for the Wetmore.

Patented **GEAR BOX DRIVE** frees you from frustration of bothersome belt slippage.

Free color catalog!



GRINDER - BLOWER reduces and blows, grain and roughage, up to 90 feet high at the same time.



Biggest GRAIN BUGGY, 400 bu. gravity flow or auger delivery.

UNITED FARM TOOLS, INC.

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REMEMBER THOSE WET SEASONS! DRAIN NOW

Better Drainage Helps You Farm Better
Save Time & Money
with Corrugated Plastic Drainage Tubing & Fittings

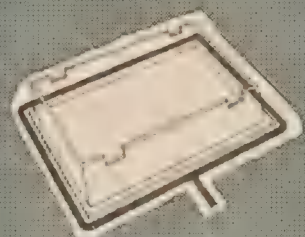


FIELD DRAINAGE

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Not many farmers set a cornerstone when they build, but Jim and Ruth Meyer replugged their unity with this one when they built the milkroom in 1971.

AERATION POND

James and Ruth Meyer operate an 80-cow dairy farm near North Java, New York. They built a major barn addition in 1971, and are using an aeration pond for disposal of wastes generated in the milking parlor and milkroom areas.

Waste goes first to a concrete settling tank (capacity 2,000 gallons), then to a 300-gallon concrete tank... where a ½-hp submersible pump pushes it through a two-inch plastic pipe toward the pond 550 feet away. The plastic is buried underground below frost line.

The pond measures about one-third of an acre in surface area; the water level varies a bit with the weather, but is generally around 51 inches in depth. The bottom was constructed level so that depth is uniform across the entire pond.

The pond was designed by Soil Conservation Service technicians, and was 50 percent cost-shared by the federal government through ASCS. There is a maximum, by the way, of \$2,500 on the share which ASCS will pay on such ponds.

The aeration pond went "on stream" on September 9 of 1971, and

July of the following year, the big settling tank was two-thirds full. "I've got two months before I have to pump it out when it's reached that level," Jim comments. He uses a sludge pump that will handle lots of solids.

The Meyers use a "squeegee" to push droppings out of the parlor into the free-stall area after each milking... to keep the accumulation of solids in the settling tank to a minimum. The experts caution them to also keep milk spillage to a minimum... a lot of milk would foul up the works and cause a breakdown in the workings of the pond.

So far, the pond has come through with flying colors... no discernible odor, and the water remains clear. Bluegills and bullheads have been stocked, and can be seen occasionally. Jim looks ahead with keen anticipation to the day when he hauls a sizable fish from the pond... hopefully convincing some doubting Thomases about the project!

The Meyer family had put in 9,000 bales of hay by August 8 of the incredibly wet season of 1972... and got nary a bit wet! They have a cold-air mow dryer that allows the putting up of hay before it's completely dry. — G.L.C.

The Song of the Lazy Farmer

One sport I cannot see at all is going hunting in the fall. It utterly



amazes me the way those city boys, by gee, can get themselves all bundled up, and with a gun and spotted pup will tramp through mud and rain and cold pretending they are really sold. The price they pay's considerable; just so they can be miserable; they're out of bed much earlier than any honestly prefer. They get all crippled up and sore and snuffle for a week or more, then when their big adventure's done, they tell themselves they've had great fun.

Sure, if the weather's warm and clear, and if I've got some cause to fear that maybe Jane Mirandy's found some chores in case I hang around, I'll grab my paw's old gun and go a half a mile away or so where I can find a spot to lurk 'til she's forgotten 'bout the work. But I'll rest right there, you can bet, instead of working up a sweat; no tramping 'round at all for me. And if by any chance I see some wildlife ambulating near, it needn't have a bit of fear 'cause I won't fire a shot unless, perhaps, the critter wears a dress.

American Agriculturist, October, 1972



ORCHARD INTEGRATION

A concept called integrated control is the basis for a study by which Michigan State University scientists have succeeded in substantially cutting the amount of pesticide sprays needed in fruit orchards. The concept is one in which all pest control methods . . . biological, managerial and chemical . . . are blended to provide the best control with the least threat to non-target parts of the environment.

The MSU program pitted the European red mite . . . a serious orchard menace not affected by most chemical sprays used on other orchard pests . . . against the predator mite *Amblyseius fallacis*, which makes a living out of eating its cousins. In Michigan's 1971 commercial test orchards, *fallacis* kept the red mite population under control and reduced the average number of miticide spray applications to less than one.

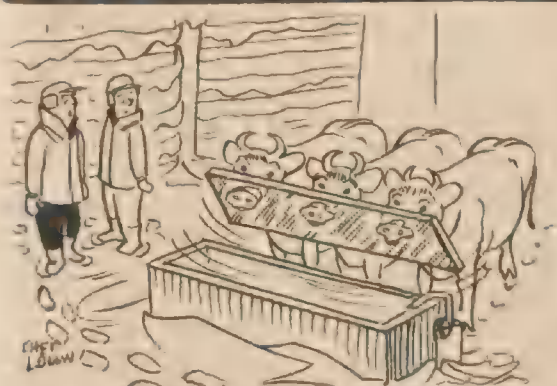
By combining the predator mites with minimal applications of selective sprays aimed at other pests, the researchers found that the use of broad spectrum sprays could be cut from 6 to 10 annual applications to 3 or 4, and the total amount of actual chemicals used could be cut by 50 percent.

A savings of \$50 per acre was another result of the integrated control program, which the scientists hope to develop into something commercial fruit growers can use efficiently and economically within the next few years.

Address Change — Our March issue listed the American Pomological Society as an organization of interest to fruit growers. However, there's an address change for the business office. For membership information, write to: American Pomological Society, c/o Dr. L. D. Tukey, 103 Tyson Building, University Park, Pennsylvania 16802. Effective January 1973, the title of the Society's quarterly publication will be changed to "Fruit Varieties Journal."

Membership is open to all individuals and organizations with a special interest in fruit varieties and their improvement.

Whiskers — County agent Dick Pease (Lockport, New York) offers a simple idea for trickle irrigation . . . "whiskers" of black micro-tubing inserted near plants along 1/2-inch plastic water pipe. Use a slice of 1/2-inch plastic pipe (3/4-inch long) into which is inserted the discharge end of the micro-tube. This keeps dirt out of the tiny opening at the end of the micro-tube.



"It must be getting colder!"

American Agriculturist, October, 1972

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They kill with kindness

by John Marsman

HUNTERS are pikers when it comes to the mass murder of game. It takes legislation passed by anti-gun zealots who sign for a "leave it to nature" policy.

The do-gooders kill 'em with kindness and, in the process, destroy entire ecological biosystems—thus changing the face of the land.

Catastrophe is never so visible as when a whitetail deer herd is protected to the point of overpopulation because gentle nature-lovers

seldom see fawns dying of starvation when all forage has been consumed, and the woods begin to look park-like.

Maybe East Africa's tortured elephants will cause second thoughts among armchair "naturalists" who live in a dreamworld of Bambi-ism.

At Tsavo National Park in Kenya the do-gooders had their way. No hunting. No management with the gun. Let the balance of nature return.

It did, with a vengeance!

Protected, never thinned, the elephants proliferated. Each great pachyderm consumes 100 to 150 pounds of vegetation a day. For some unknown reason, a mature tusk finds it his mission in life to strip or break down every tree he finds in his path.

Right now the elephant population of Tsavo National Park is in excess of 25,000—but that's probably an all-time peak, because inevitable forces are at work.

Once well-forested, Tsavo . . . an area roughly the size of the state of Massachusetts . . . is swiftly changing to grassland, thanks to tremendous herds of elephants. Last year there was a drought, and water holes dried up. Pachyderms died

by the hundreds . . . some estimate by the thousands. Their huge, bloated carcasses lay in the dust.

They'd been killed by kindness, and their travail is far from over. As the park's environment changes, torn by tusks and trampled into a relative desert, nature will take care of its own by ruthlessly eliminating overpopulations of animals that can no longer compete. Have the do-gooders succeeded?

Sure they have, if their object is an unnatural situation where the environment is destroyed and the game suffers untold agonies and nothing but the wheeling vultures are benefited.

Thanks to an almost psychotic aversion on the part of some people to necessary management by the gun, situations are created where wild game builds populations to a point where the environment rebels. Then nature cuts back . . . and nature's method is no gentle thinning. Always the retribution is massive . . . and the suffering long and drawn out.

Having scourged her too-ambitious progeny, nature then allows a gradual build-up to another critical point . . . this time a lesser peak, thanks to the previous destruction of habitat. The progression is inevitable: without population controls, there is a calculated boom and then a big bust. Elementary!

Changing

The park's face is changing. Trees are all but gone in many areas, and a barren grassland takes the place of a lush forest. Quite naturally, this induces a quick runoff of water . . . hence drought. Forage is disappearing, so the elephants are dying. They die hard, gasping for water, starved . . . finally going down like gurgling mountains of flesh in the dust. Vultures enjoy a Roman holiday.

Modern management, advocated by every well-trained game biologist, might have averted this entirely predictable catastrophe. Unfortunately, the anti-gun, anti-hunting zealots triumphed, turning deaf ears to the established fact that any given acreage will support precisely so many animals, and no more.

Slow Death

Result? Tortured, lingering death for the surplus that nature rejects; a ravaged environment that sustains life only for other, and often lesser, forms of life; a sickening waste of a magnificent renewable resource.

African natives, starved for lack of protein, must entertain strange thoughts about white men who refuse to control a proliferating herd by wise harvesting.

Is there any excuse for do-gooders who shrug off the destruction of a natural environment and prefer to see regal game animals die of starvation and thirst rather than to thin the herds, protect the land, and make good use of healthy flesh?

Compared to these tamperers with nature's ebb and flow, the gunner is a gentle man. His kill is calculated and clean, bereft of torture and waste. In banning the hunter, our fuzzy-minded parlor naturalists insure a rapid deterioration of the environment and a sordid mass murder of the creatures they profess to help!

American Agriculturist, October, 1972

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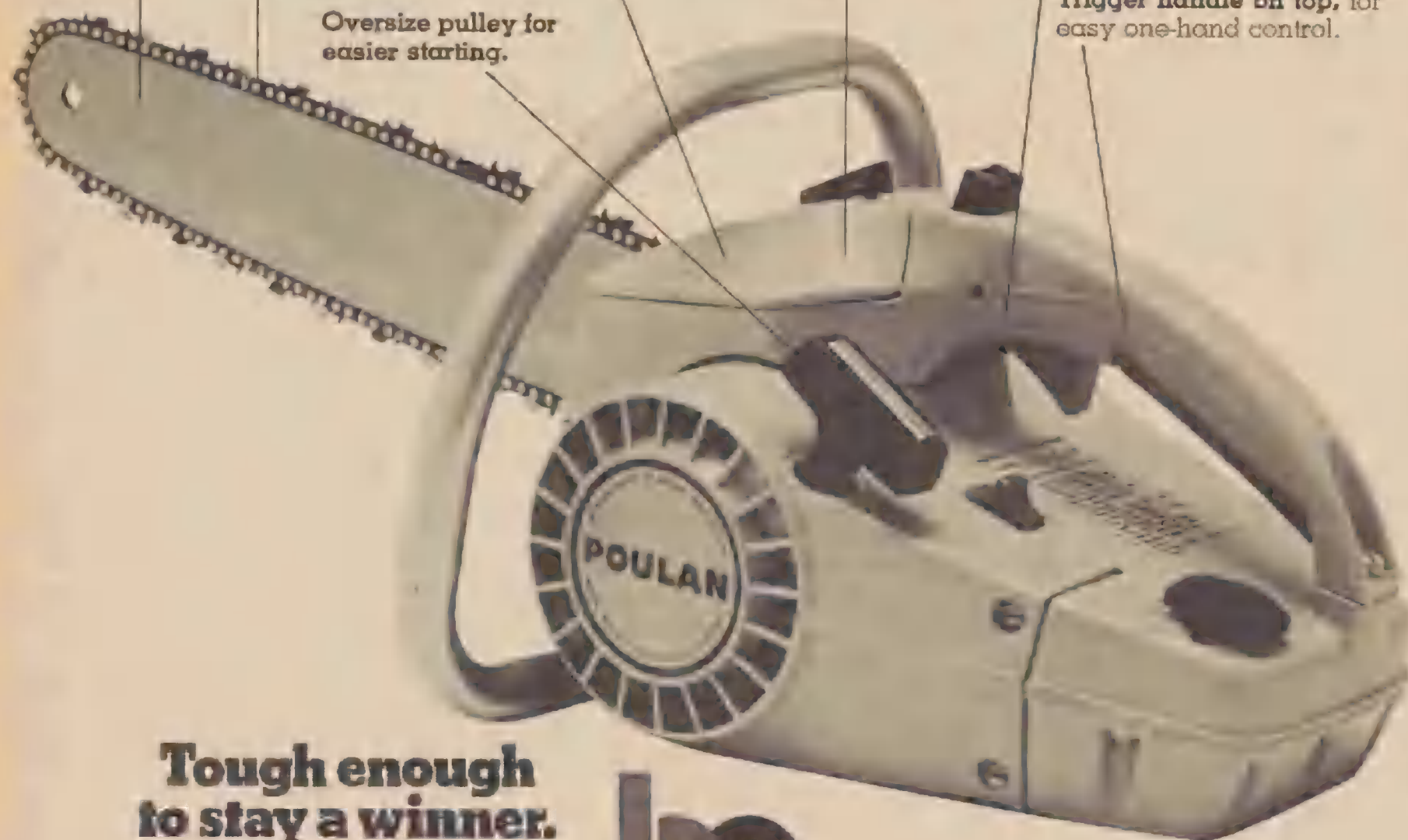
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Puckier pickles

by Charles Stratton

THE unusual in "puckier" pickles and homemade gourmet delicacies starts at Hickin's Mountain Mowings Farm on Blacktop Mountain, Dummerston Center, Vermont. The guest book at Frank and Mary Hickin's farm salesroom attests to the worldwide visitors who drive up the dirt road to buy their maple syrup pickles, maple syrup and wine fruit cakes, and other homemade food items . . . as well as top-quality home-grown vegetables in season.

Mrs. Hickin makes and sells hundreds of her fancy fruit cakes annually at the farm and by mail order. Though she has been making fruit cakes for more than 25 years, she never uses the same recipe, preferring to experiment, perfect, and improve each year.

If it's pickles you want, try a sampling of Frank Hickin's home-made "puckier" pickles, either in various size jars or fresh from a row of 10-gallon earthenware crocks. He keeps four or five kinds of home-made crock pickles on hand, all sweetened with Mountain Mowings Farm's own maple syrup.

All Kinds

He makes over a dozen types of pickles . . . maple piccalilli, maple icicle pickles, or maple crookzini, made of crooked neck zucchini and patty-pan squash. He claims that once a customer gets a taste of his maple crookzini they're sold! Many try a 9-ounce trial jar and end up buying 6 to 10 quart jars at a time.

He won't even mention such specialties as "kosher-type pickles stuffed with cole slaw." (He hopes he won't sell many, as the hand work involved is too detailed.) A big sign warns customers not to shake the pickle jars, as no artificial preservatives are used.

He sells all the maple syrup crock pickles, both sweet and sour, that he can grow and prepare. One secret, he claims, is to pick cucumbers from four inches in length down, instead of from four inches up.

Got the Bee

A humorous incident the Hickins like to tell about was the time a honeybee got into a cooling crock of newly-made pickles and an over-enthusiastic visitor was in such a hurry to sample them that he ate the bee-garnished pickle!

As home-grown fruits and berries ripen throughout the season, some 40 kinds of jams and jellies are made, including red raspberry. Hickin finds that the strawberry variety known as Sparkle tops all other strawberries for flavor in jam and jelly.

A price list is available (mailing address is Rt. 1, Black Mountain Road, Brattleboro, Vermont 05301),

and gift orders are made to customer specification. Visitors are welcome anytime the farm salesroom is open, which, as Hickin comments, is "generally year-round until dark and also on Sundays, unfortunately!" During the maple syrup season, the saphouse is also open to visitors.



Mary Hickin displays an experimental batch of 100 jars of quince butter and jelly.

Test your knowledge of these electricity-saving hints. They're worth MONEY to you!



The kilowatthours that register on your farm electric meter may not always be usefully employed. The result: higher electric bills. Here are six useful hints to help you avoid wasting electricity, reduce operating costs, and boost your profits.

1. **Check your barn wiring.** Wet walls may combine with faulty wiring to cause an expensive drain of electric current into the ground.
2. **Check the condenser on your bulk milk cooler.** If it's clogged with dirt, you could be using up to triple the current normally needed to cool milk.
3. **Check your barn fan housing and blades.** If they're dirty, fans must operate overtime in trying to move air.
4. **Check the pressure switch on a jet or submersible pump.** Sometimes a switch will fail and the motor runs for weeks without stopping. Consider installing a pilot light to this circuit.
5. **Check hot water faucets for leaks.** A faucet that leaks 60 drops per minute wastes 30 kilowatthours per month.
6. **Check your stock waterer thermostat.** A poorly adjusted or faulty thermostat can waste hundreds of kilowatthours each month by keeping the water too warm.



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Dollar Guide



MILK PROMOTION deduction of 5 cents per cwt began in Chicago federal milk marketing order on October 1. Takeout was approved by 74 percent of producers voting.

"**SAVE OPEN SPACE**" is motto of people promoting "yes" votes on questions 1 and 5 on Massachusetts ballot. Voters will decide on fate of present-use taxation for farmlands.

USE OF DES to stimulate growth in beef animals may not be legal in any form in future. Canada has taken action to eliminate any use of DES, but U.S. regulations still allow its use as implant after January 1, 1973, but not as a feed additive.

FLOOD DAMAGE VICTIMS should get copy of "How To Claim Disaster Losses Against Federal Income Tax" from nearest office of Internal Revenue Service.

CLUSTER FLIES (buckwheat flies) are driving house-
wives up the walls this year ... a wet year favors their proliferation. Hang pesticide-impregnated strips in attics, and try to close entrances into rooms.

NO HAY ... or very little of it fed to ruminants ... can create problems, report a number of veterinarians. Several disorders have been blamed on a low-hay diet ... including displaced abomasum (twisted stomach), too-fat cows, abomasal ulcers. Nutritionists suspect hay has an "unknown growth factor" (UGF), and are searching to find what it is. However, the Northwest Experiment Station in Minnesota reports, "In general, our research indi-
cates haylages are superior to hay for feeding dairy animals ... from calves through all age groups to mature cows."

SHEEPMEN anywhere in the U.S. can dial a toll-free number for market information. The 24-hour-service is sponsored by American Sheep Producers Council, and National Wool Growers Association. Number is 1-800-525-3566.

FARMLAND PRICES continue upward ... by 8 percent nationally between March of 1971 and the same month in '72. New England prices up 11 percent, New York and Pennsylvania rose 9 percent, New Jersey by 13 percent.

Average value of Northeast farmland is now \$448 per acre ... ranging from \$1,311 in New Jer-
sey to \$192 in Maine.

COMPULSORY SOIL CONSERVATION is essence of a landmark piece of legislation passed in State of Iowa. Landowner there can be ordered to adopt soil and water conservation practices, and fined if he does not comply. State or federal funds must pay 75 percent of cost of practices so ordered.

NEW GRAIN VARIETIES include Arrow wheat and Astro oats ... developed at Cornell. Astro seed will be available for 1974 season.

POTATO research and promotion is being financed by national plan (effective September 15) that re-
quires assessment of 1 cent per cwt.

NATIONAL CORN CROP still expected to be around 5 billion bushels ... a big one. Russian grain purchases, plus booming U.S. demand for meat, has strengthened price forecasts even for large crop.

DEMAND FOR APPLES looks unusually strong this fall ... partly because most competing fruits are down in production.



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Limited Time!

These dairymen were

Battered but unbeaten

by Charles Stratton

"WE couldn't afford to run an awkward business." That's what Massachusetts dairyman William Schreiber and his son Tom say about their Wauban Farms, near Ashland. The farm got its name from an Indian word meaning "happy families," and it's here that these two determined farming partners, plagued by repeated business problems, put a two-time-losing dairy business in the black.

Troubles started in Connecticut when William Schreiber was operating a one-man, 17-cow dairy farm. Looking back on his mini-herd crowded out by excessive land costs and taxes, he says, "The farm couldn't support 17 cows, and I couldn't handle it alone."

The next step was his purchase of the 500-acre Wauban Farms... 300 acres of woodland, 200 of permanent pasture... and the move to the Bay State.

Dilapidated

Once owned by a millionaire who lost everything in the 1929 crash, the old hobby farm and its show buildings had gone to pot. "The buildings were in bad shape," Schreiber says. "The roofs and silos were caved in, and there were only 33 stalls." Some claimed the buildings were so huge and the setup so inefficient that anybody was crazy to have anything to do with it and the only sensible thing to do was tear it down.

But he and his partners... son Tom and son-in-law Glenn Schmidt... agreed to renovate. Extension agricultural engineer Bob Light, and the late Prof. Rhodes of the agricultural economics department at the University of Massachusetts, were called in to advise.

The result was extensive remodeling and the addition of 33 more stanchions for a total of 66 in three rows. Cows were placed back to back in two rows, allowing for use of two barn cleaners to service all three rows. Milking was awkward under this setup, and a new double-four herringbone was installed for one-man milking.

That was in 1966. Repairs had been costly, the parlor had cost 80 percent more than expected, and this dairy business was still in deep trouble. The partners started milking 60 cows and soon discovered their overhead was so high they were losing \$1,000 a month!

In the face of this tremendous monthly loss, dairy experts suggested that the partners double their herd capacity. They couldn't afford to wait and raise their own young cattle to expand the herd, but were finally persuaded to buy more cows, ending up with 80 milkers. This was the turning point. "Instead of going still further backward," Schreiber says, "we finally broke even, and in another year, when we reached 100 head, we started to show a profit."

More Improvements

Other repairs and improvements have been made at Wauban Farms. Three to four feet of crushed rock were placed under the main barn to firm it up. Other wings on the barn were converted to 135 free stalls, an old manure pit on the south side was cemented and made into a "solarium" for the cows, and an overhang was added to the outside feed bunk.

After a year of helping out with the remodeling with his extensive electrical and carpentry knowledge, and getting his partners firmly estab-

William Schreiber, his son Tom, and visitor Shirley Sweet.



lished in the dairy business, Glenn Schmidt left the partnership to return to the building trade.

Another Schreiber son, William Arthur Schreiber, an American Airlines pilot, spent many weekends clearing out brush with a chain saw for the farm's expanding roughage program.

Legumes

As the elevation was found to be too high for efficient growing of corn, the Schreibers started using hay-crop silages for higher-nutrient feeding. This haylage is fed from October until spring when pasture and green-chop is available.

Although many dairymen figure on two good cuttings of grass annually, the Schreibers claim you can't manage legumes that way and plan on four cuttings for a total of 6 to 7 tons per acre on established stands. They feel they get better quality, though timing is critical.

They figure on cutting about June 1, in mid-July, and August 1... then feed 200 pounds of muriate of potash per acre around September 1 and allow a 45-day rest period to build up plant strength for winter. The final cutting is around October 15.

An extensive pasture system, consisting of ten 8 to 10-acre plots, is being eliminated by removing fence-lines, and brushland is being cleared for more cropland. These dairymen feel pastures are compacted by graz-

ing, production is lost, and the program is time-consuming... as compared to bringing the roughage to the cows.

Pastures were rotated every three weeks for parasite control and to give legumes a rest. Dry cows were allowed to graze pastures for a couple of days behind milkers. A 10-acre dry lot is being retained. Pastures were limed at the rate of six tons of lime per acre and 10-20-20 is applied twice a year.

As soil is very heavy and borderline for alfalfa, the Iroquois alfalfa developed by plant breeders at the New York State College of Agriculture and Life Sciences is being given a thorough trial.

Hayland on Wauban Farms is used for wilted grass and green-chop. The Schreibers contract for 65 percent of their hay crop on a nearby farm. Last winter, some 100 tons of wilted grass were stored under black plastic within 100 yards of the feed bunk. Edges were sealed with dirt, and the plastic was weighted by tires. A tractor bucket scoop was used for feeding.

Look Ahead

What's ahead? Wauban Farms is operating in the black. There is less barn moisture in free stalls, and the cows are healthier. The farm is still undergoing expansion. Cows are being grouped according to production for milking and feeding schedules.

The Schreibers, aided by Stockbridge School graduate Floyd Taylor, and high school student Duane Schmidt, have put the farm in first-class operating condition. The herd, formerly grade Holsteins, has been upgraded to about 50 percent pure-breds. They averaged over 14,000 pounds of milk and 518 pounds of butterfat... until another blow struck.

During a sudden storm on July 29, 1971, lightning knocked down 30 to 40 cows and left 11 of their best milkers dead. The ones closest to the two trees in the dry lot next to the barn were killed. The trees were cut down immediately.

Other dairymen might have quit long ago... but not the Schreibers. Wauban Farms is the home of an upcoming Holstein herd, and a good working farm... far different from the white elephant showplace that nobody wanted after the stockmarket crash in 1929.

American Agriculturist, October, 1972



Who says that mowing hay with a scythe is a lost art? The Hans Eccard family of East Washington, New Hampshire (son George at left, Mrs. Eccard, right), mowed 'em down at the county DHIA field day and won the scything contests... all three were winners. Photo: Max Markmann.

Food For The Spirit



by Robert L. Clingan

Many inhabitants of the Northeast had their lives touched by the floods of '72. As pastor of a church in the midst of a flooded area, I have had occasion to ask and answer the question, "Where was God?"

The Creator has given us a world where storms come and natural upheavals occur, sometimes with grave consequences to His children. A mature faith calls us to accept this stormy planet as one of the facts of life with which we must live. This is part of what the late Detrich Bonehoefer meant when he talked about man "coming of age."

I have seen God at work in this ravaged community. I have seen people brought together by this common crisis who had little time or concern for one another before it happened. It not only brought us together, but it brought out the best in each of us. God was in the midst of this crisis, weaving patterns of mutuality, concern, and support.

Values

With this experience has also come a re-sorting of values. When a person has to leave his flood-threatened home and can take only a few things with him, his whole value system comes into question. He decides then and there what he has that is most

important. At a time like this, the priority of human life, even the life of another, takes precedence over material possessions. At the heart of this experience, God is at work.

Faith may also be deepened. When a person is driven beyond his normally-usable resources, he finds himself driven to those deeper resources, spiritual reserves, that can only be tapped by exercising faith.

People talk about "when this is over" ... "tomorrow" ... "next time." Each of these phrases is an expression of faith. We believe this will end, that tomorrow exists, and that there will be an opportunity to begin again. This beginning again, this tomorrow, will be most fruitful if faith in God, in ourselves, and in each other, continues to operate. Faith

restores, faith builds, faith makes a new beginning possible.

After the storm and floods are over, there is usually a rainbow in the sky. The Bible tells us that this "bow in the sky" is a sign of God's promise to Noah, to mankind, and to all living creatures that every storm and every flood will be limited in the area it covers and the time it endures.

Life goes on.



JOSEPH

Who has not carolled Mary
And who her praise would dim?
But what of humble Joseph
Is there no song for him?

If Joseph had not driven
Straight nails through honest wood;
If Joseph had not cherished
His Mary — he should;

If Joseph had not proved him
A sire both kind and wise,
Would he have drawn with favour
The Child's all-probing eyes?

Would Christ have prayed
"Our Father"
Or cried that Name in death,
Unless he first had honoured
Joseph of Nazareth?

Gilbert Thomas

YEAST COFFEE CAKE CONTEST COUNTY WINNERS

Here are the Pomona Grange Yeast Coffee Cake Contest winners who will compete in the state finals at State Grange Session in Syracuse on October 23. Be sure and look in our December issue for the story of the finals with pictures of the winners present at State Grange and the prizes they won.

COUNTY WINNERS

COUNTY	GRANGE	WINNER
Albany	Bethlehem	Mrs. Betty Morehouse
Allegany	Cuba	Mrs. Rufus Campbell
Broome	Binghamton	Mrs. Paul Williamson
Cattaraugus	Ashford	Mrs. Ethel Engels
Cayuga	Five Corners	Mrs. Ruth Shaw
Chautauqua	Hanover	Mrs. Sandra Shevlin
Chemung	Veteran	Mrs. Eleanor Dady
Chenango	Sherburne	Mrs. George Robinson
Clinton	West Chazy	Mrs. Adelaide Penfield
Columbia	Livingston Manor	Mrs. Wilfred Pulver
Cortland	South Cortland	Mrs. Marion Griswold
Delaware	Utsayantha	Mrs. Clara Champlin
Dutchess	Washington	Mrs. Grace Briggs
Erie	Hamburg	Mrs. Esther Hoag
Essex	Wadhams	Mrs. Gladys Pierce
Franklin	Malone	Miss Vivien Dufort
Fulton	Perthshire	Mrs. Elizabeth Bowers
Genesee	Oakfield	Mrs. Arthur Nanni
Greene	Climax	Mrs. Mabel Hotelling
Herkimer	East Schuyler	Mrs. Marion Johnson
Jefferson	Dexter	Mrs. Edna Bates
Lewis	Lowville	Mrs. Gerald Monnat
Livingston	Linwood	Mrs. Charles Russ
Madison	Smithfield	Mrs. Naomi Denison
Monroe	Honeoye Falls	Mrs. Charlotte Menz
Montgomery	Florida	Mrs. Elsie Jager
Niagara	Newfane	Mrs. Grace Herr
Oneida	Seifert Corners	Mrs. Everett Keller
Onondaga	Lysander	Mrs. Mildred Southard
Ontario	Canandaigua	Mrs. Francis Yerkes
Orange-Rockland	Little Britain	Mrs. Ruth Coleman
Orleans	Barre	Mrs. Mark Turner
Oswego	Pulaski	Mrs. Robert Kling
Otsego	Springfield	Mrs. Betty Willoughby
Putnam-Watkins	Patterson	Mrs. Ethel Schenck
Rensselaer	Johnsonville	Mrs. Louise Youngs
Saratoga	Ballston	Mrs. Ruth Center
Schenectady	Giffords	Mrs. Earl Hart
Schoharie	Summit	Mrs. Betty Skidmore
Schuyler	Townsend	Mrs. Doris Berry
Seneca	Rose Hill	Mrs. Bernice Deane
Steuben	Hedgesville	Mrs. Irene Bullock
St. Lawrence	Lisbon	Mrs. Carrie Dawley
Suffolk-Nassau	Southold	Mrs. David Monk
Sullivan	Bloomingburg	Mrs. Estella Johnson
Tioga	Berkshire	Mrs. Magdalene Ceuter
Tompkins	Lansing United	Mrs. Goldie Ruzicka
Ulster	Plattekill	Mrs. James Horton
Warren	Stony Creek	Mrs. Anna Erikson
Washington	Putnam Valley	Mrs. Myrtle McIntyre
Wayne	Rose	Mrs. Charles Fox
Wyoming	Buffalo Valley	Mrs. Eleanor Winch
Yates	Crystal Valley	Mrs. Nathaniel Chadwick



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mixture of sources. Every nutrient known to be essential for proper heifer development is included in balanced amounts. But Nurse-Gro has still other advantages that even fresh whole milk can't equal.

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7268. Whirl everywhere in this great cape with cable trim. Instant knit of bulky yarn and big needles. Fits Misses' Sizes 10-18. . . . 50 cents

612. Crochet a pretty scalloped cardigan of 3-ply fingering yarn. Easy-to-follow directions for sizes 10-20 included. . . . 50 cents

7298. Use worsted in 2 shades of a color to make jiffy-knit beret in rib stitch, on 2 needles. Matching mitts. All sizes included. . . . 50 cents

973. Crochet 3-color ripple capes in solid, openwork bands. Directions for Child's sizes 2-12; Teens and Misses' 8-16 included. . . . 50 cents



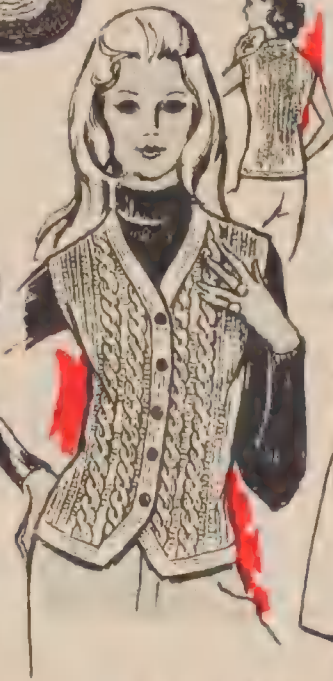
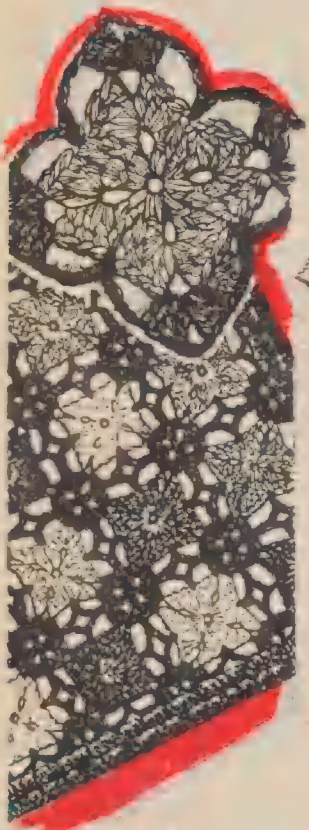
7428

7428. Roomy shoulderbag and matching hat in two or three colors. Crochet of knitting worsted. Bag, hat sizes S, M, L included. . . . 50 cents

970. Knit cable-trim coat in one flat piece including sleeves. Use worsted for coat, cap. Directions, Child's 2-12 included. . . . 50 cents

7348. Add knitted dash to any wardrobe with vest of worsted; easy striped pattern stitch and front cables. Sizes 32-38 incl. . . . 50 cents

578. Choose smashing colors of worsted for Instant Crochet potholder vests. Misses' S, M, L; Child's 4-10 year sizes included. . . . 50 cents



7070. Charming sunbonnet sisters have skirts that button-off to become potholders. Great gifts! Transfer, directions for set. . . . 50 cents

7260. Surprise a child with this fluffy French poodle. Easy to make in single crochet and loop stitch. Directions for 11½" poodle. . . . 50 cents

934. Add embroidered flowers to linens with quick stitchery. Transfer, one large motif for sheet, two smaller for cases, towels. . . . 50 cents

7120. Turn scraps into a field of flowers for this cozy afghan. Watch TV while you crochet 3½" medallions, then join. Directions. . . 50 cents

936. Easy-to-make 9" doll and wardrobe. Pattern pieces for doll, 3 dresses, coat, 'jamas, lingerie, included; directions. A thoughtful gift. . . . 50 cents

557. His and Her slippers—crochet in one piece. Do contrast trim separately. Optional soles given. Sizes S, M, L included. . . . 50 cents

504. Use scraps—the brighter, the better—for this plumply padded TV turtle. Pattern pieces; directions; 15½ x 19-inch cushion. . . . 50 cents

7146. Whip up dainty gift aprons. One has embroidered pockets, the other pretty embroidered flowers. Transfers, directions. . . . 50 cents

965. Youngsters love these snuggle slippers. Knit each slipper in one piece plus cuff. Directions for sizes 4-12 included. . . . 50 cents



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GARDEN TALK

by Doc and Katy Abraham

Crab Apples

Can the fruit of flowering crab apples be used for food? Yes, many varieties make fine jams and jellies. Here's a good recipe for

CRAB APPLE PICKLES

2 quarts crab apples with stems
(about 2½ pounds)
1 tablespoon whole cloves
2 sticks cinnamon
6 cups sugar
3 cups vinegar
3 cups water

Prick each apple twice with tines of a fork to keep apples from bursting. Tie spices in a cheesecloth bag and add to sugar, vinegar and water. Boil for 5 minutes. Add apples and cook until almost tender. Let stand in cool place for about 12 hours.

Fill hot fruit jars with apples. Bring liquid to full boil and pour over apples, leaving ¼-inch head space. Seal. Process jars 10 minutes in boiling water bath. Makes about 6 pints.

This recipe for Crab Apple Honey was sent to me by a reader — Wash crab apples, remove cores, but leave on skins. Cut apples into small pieces and run through a food chopper. Place in a kettle with enough water to cover. Boil 10 minutes. Measure pulp and add ¾ as much sugar as pulp. Cook until clear and seal in hot jars. Good luck!

Start a Compost Pile

Leaves, grass clippings, wood chips, weeds, and anything else that decays should not go to the dump, but rather on the compost pile. Build a pile with cement blocks, and you won't have trouble with mice, rats, or other rodents. Nothing beats organic matter for loosening a heavy clay soil or tightening a sandy, well drained one.

Did you know that inside a compost pile the bugs have a "hot time"? A marble-sized piece of compost may at times contain as many as a trillion microorganisms. Composting begins with millions of these "bugs" acting on materials used in building the pile. Their life processes produce heat as a by-product, enough heat in the center of the pile to burn your hand, according to reports from the Connecticut Agricultural Experiment Station.

These heat-loving microbes are replaced by bacteria and fungi that like cooler temperatures, and at this stage the compost is ready for use. Start a compost pile today if you don't have one, and put those billions of tiny microorganisms to work for you.

Cluster Flies Again

Cluster flies, sometimes called "buckwheat flies," are out in full force now. Fortunately, these flies are not as filthy as the regular house fly. I'd much rather have a cluster fly in my coffee than the common fly!

Control — Use the vacuum sweeper to get rid of them in the attic. Spray with aerosols in areas where

the flies are heavily clustered. Fly paper also works fine if hung in the attic.

Meanwhile, just be thankful that the common housefly is no worse than it is. If progeny lived from a single pair of flies mated in April, there would be a total of 191,010,000,000,000,000,000 flies by August. If you can't read that figure, it amounts to 191 quintillion, or 10 quadrillion. If you figure one-eighth of a cubic inch per fly, this number would cover the earth 47 feet deep. Fortunately nature has a way of keeping flies from over-running the earth! So next time you see a fly in your coffee, don't fly off the handle.

Crab Apples Shed Leaves

This year we've had a lot of leaf shedding on ornamentals such as crab apples, hawthornes, etc. Much of this has been due to a fungus called scab, and it was aggravated by wet weather in June and July. This plus the high humidity has been ideal for the rampantly spreading fungus.

Some trees are practically naked from the scab disease. It's a good idea to spray your trees now with captan and then again next spring. Rake up all old leaves and burn them.

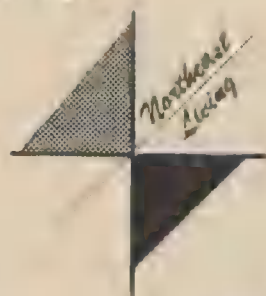
Incidentally, if you're building a new home, remember that by adding a layer of soil as little as 8 or 10 inches deep may limit the amount of oxygen available to the roots of a tree and suffocate it. Don't let the builder push soil around the base of your trees. Also, build a frame around a tree, so the bulldozer won't scrape the bark. A man on the bulldozer somehow has a lot more respect for a fence than he does for a tree trunk.

AA Garden Clinic

A reader writes, "The tips of our ferns are turning brown. Also, the leaves are yellowish, and we wonder if the plant needs repotting."

Answer — When the tips of fronds turn brown, it's often a sign of air being too hot and dry in the room, or possibly people brushing against the foliage. Ferns need plenty of elbow room.

Yellowish leaves may be a sign of a lack of nitrogen. Feed the plant some liquid plant food. Yellowed leaves can also be due to poor drainage, too much direct sunlight and overwatering.



NEW CAR

Dad is billed,
Mom selects,
Sis is thrilled,
Sonny wrecks.

by Roy Z. Kemp



With Our
ADVERTISERS



Fifty years ago, International Harvester Company introduced the first genuine row-crop tractor. Advent of the Farmall in 1922 revolutionized the tractor industry. Today's counterpart is the powerful 1466 Turbo tractor shown with a controlled-environment safety cab that protects the farmer against atmospheric contaminations, noise, vibrations and accidental rollover. An interesting comparison shows that plowing capacity has been increased 1186 per cent, which means one 1466 can do approximately the same amount of work as 12 of the original model.

The new model 2032 Harvestore System from A. O. Smith Harvestore Products, Inc., fills a gap in the firm's line of oxygen-limiting feed storage units.

Its capacity of 6,500 bushels of shelled corn makes it suitable for the medium-sized beef or dairy farmer who desires more high-moisture grain storage than offered by smaller Harvestore units, yet does not need the capacity of larger model structures.

Harvestore oxygen-limiting structures are available in sizes ranging up to a nominal 25 x 80 feet and can handle either high-moisture grain or haylage and other forage feeds, depending upon the unloader which is installed with the unit.

John Deere is marketing the ultra-modern Sound-Gard Body as an exclusive feature of its new Sound-Idea Tractor line. The Sound-Gard Body is of unitized (modular) construction, complete with seat, steering wheel, all controls, instrument panel, platform, and built-in safety features. The design reflects concepts used in capsules with their built-in life-support systems.

Everything about the Sound-Gard Body was designed for operator comfort, convenience, and safety.



A new Supersheller, with the capacity to shell from 400 to 500 bushels of corn per hour, has been introduced by Avco New Idea for both 2 and 3-row pull-type Super-pickers for wide and narrow rows.

Standard equipment on the new machine includes a corn thrower; adjustable load leveler and wagon auger throw-out clutch, both controlled from the tractor seat; complete overload protection; and safety shields on drives. Easily mounted or removed by one man, Supersheller interchanges with Avco's big 8 or 12-roll husking units.

Exclusive spinning feed table on New Holland's new Model 25 Whirl-A-Feed forage blower gives great capacity and efficient use of tractor power. The "25" accelerates the crop to about ½ the tip speed of the fan, and big, heavy clumps are broken up by this unique feeding method that matches the top unloading speed of most forage boxes.

For silo filling, wheels can either be moved to an upper position, or removed entirely.

Silo Services, Little Falls, New York, has developed a thorough method of relining concrete, metal or tile silos; trained men and proper equipment, sand-blasting to clean, then a new liner of epoxy or pressure-applied cement to bond to old wall, forming an airtight, acid-resistant interior to the silo. This application is especially good for hi-moisture corn silos, or silos that are deteriorated on the inside.

The "County" tractor is produced by the Ford Motor Company's tractor and Implement Operations. A new County Super Six has 96 pto horsepower.

It offers unusual traction and flotation because of its four equal-sized tires, and the four-wheel-drive feature.



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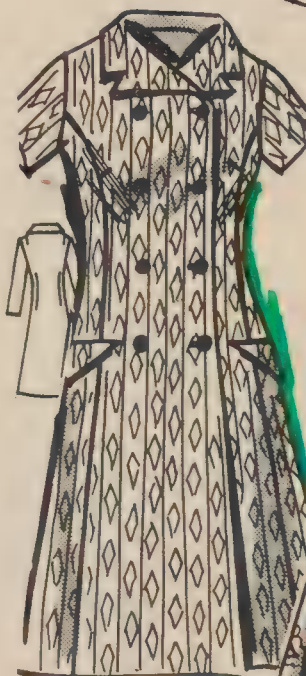
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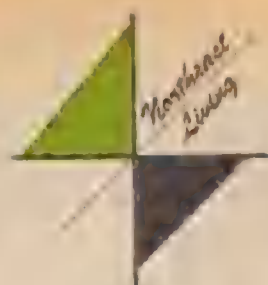
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Visiting

with Home Editor Augusta Chapman



Food fads have always been with us. I guess, and probably always will be. In some cases, they may be harmless; in others, people indulging in these fads fail to eat foods that are needed for a good diet, nutritionally. If followed over a long period of time, real damage can be done to one's health.

A newer food fad, the "organic" craze, was first amusing and then disturbing, as more and more people seemed to be falling for it. Now, from the wealth of material coming in my mail, I am glad that common-sense information, from competent professional persons with no axes to grind, is going out to tell the public the truth about so-called organic foods.

Dr. Ruth M. Leverton, science advisor to USDA's Agricultural Research Service, says the prevalence of misinformation about nutrition and food is "serious and growing more serious." She says the greater cost of organically grown food (from one-third to one-half more than the same foods found in the usual food market) does not mean greater nutritive value.

Dr. Leverton warns that not all food so described is actually organically grown and that organic fertilizers are one of the greatest sources of salmonella and other micro-organisms that can contaminate our food supply. She continues, "It is one thing to grow a few tomato plants on a balcony using organic fertilizer, but it is another thing to grow enough food for the Nation by such methods."

Organic Hoax

The very same thoughts are expressed in a bulletin printed last February by The United Fresh Fruit And Vegetable Association, from which the following is taken.

Remarkable increases in sales of alleged "organically grown" fruits and vegetables occurred in the past year, even though they sold at 50 to 100 percent more than superior commercial products. Such sales gains are even more remarkable in view of the fact that "organically grown" produce is a gigantic hoax.

First, there is no benefit to the consumer as to nutrient content or safety if produce is grown with animal and plant manures only and without pesticides. Commercially grown fruits and vegetables are equally nutritious, safe and of superior quality.

Second, it is not possible to feed our 206 million people without use of agricultural chemicals, or farmers would be doing it. They use chemicals because they must in order to raise adequate, high quality crops. In primitive countries, where truly organic methods are used, people are under-nourished and often starve.

Third, it is easy and tempting to rake in a huge profit by offering

fruits and vegetables as "organic" when they are not.

"Look out for coming scandal in surging organic foods," writes E. B. Weiss in Advertising Age of December 8, 1971. "The processor and the retailer who decide to market chemically-grown food as organic can take whopping profit margins. When the temptation is that powerful, the fast-buck boys are going to move in."

They have moved in; most of the food alleged to be grown completely without chemicals is merely mislabeled.

The hoax goes beyond that. There is no such thing as an "organically grown" plant. Plants utilize water soluble inorganic ions, not organic compounds. They cannot use manure until soil organisms break it down to inorganic elements.

The truth will sink in sometime, but it takes quite awhile for facts to catch up with the smooth and scientific sounding quackery of the pitchmen who now have even blended "organic" shampoos and face creams.

Frightening Results

Yields were compared from two garden plots at the Research Station of Virginia Polytechnic Institute. Vegetables were grown in one plot organically, in the other with the help of modern agricultural chemicals.

Dr. Robert C. Lambe, Associate Professor and Extension Specialist in Plant Pathology, says "The results are frightening. Insects and soil-borne disease organisms completely wiped out some of the vegetable crops while causing low yields in others."

Here are a few figures to show you what Dr. Lambe means by "frightening."

Five rows of tomatoes yielded 146 pounds in the chemically-protected plot and 141½ pounds in the organic plot. The yield for five rows of cucumbers was 205 pounds, versus 28¾ pounds.

One row of white squash grown under chemical protection yielded 157 pounds, compared to 3 pounds under organic methods. No eggplant was produced from the organic plot, due to flea beetles attacking the plants while they were small, while 153¾ pounds came from the chemically protected plot. Final figures for the two plots were 1,954 pounds of vegetables versus 237 pounds.

Don't Be Fooled

We wives and mothers want to feed our families appetizing, nutritious and well-balanced meals every day of the year, and it's a challenge to our imagination and resourcefulness. Let's not waste our money on food fads which do not benefit us in any way or put better meals on our tables.

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Barbados harbor police uniforms are in style of Lord Nelson's sailors. Here a police corporal helps visitor in capital city of Bridgetown.

Give Yourself A Treat

After all the excitement of Christmas and New Years is over, and you're a bit bored with the snow, ice and cold weather of our North-eastern winter, we invite you to pack some lightweight clothing and come with us to the sunny Caribbean. Dates for our Caribbean Cruise are **January 27 through February 9**, and we promise you a wonderful vacation in the land of eternal sunshine.

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There's plenty of entertainment, good company, and everything you could possibly desire for a perfect cruise. As in the past, you can join our Caribbean Holiday either in New York City or at Port Everglades if you're spending the winter in Florida.

Our first port of call is **Aruba**, where huge rock formations dominate the rugged landscape. Sheltered coves along the north coast provide pleasant secluded spots for picnics, and the island's greatest attraction is sparkling three mile-long Palm Beach.

The trim capital Oranjestad is noticeably Dutch in character, with many quaint old homes as well as modern government and business buildings and attractive residential sections. Aruba is practically a free port, and there are enticing stores with a surprising variety of merchandise.

Barbados is most English of the West Indies Islands. Rimmed with silvery beaches, it is a land of sunshine tempered by the tradewinds. One thing you will surely want to do here is sample the delicately prepared flying fish for which Barbados is famous throughout the world.

Harbor policemen in the capital city of Bridgetown are dressed in the uniform of Lord Nelson's sailors. Near Bridgetown, you may want to visit the Clock Tower, St. Anne's Castle, Gun Hill, St. John's Church, Codrington College and the Mount Potteries.

Another of Christopher Columbus' discoveries, the island of **Antigua** is being newly discovered by more and more happy tourists each year. Near St. John's, the capital, are the sugar factory, cotton mill and rum distillery.

At English Harbor are Nelson's Dockyard with its 16 buildings recently restored and Clarence House, first occupied by Prince William who later became King William IV. On bluffs around the harbor mouth are gun platforms, and on the hills above the Dockyard are the remains of forts, barracks and a military cemetery.

Our first view of **San Juan, Puerto Rico**, is the old historic fort, El Morro, standing guard over the harbor entrance. Puerto Rico has a background of 400 years of Spanish culture and so is "foreign" although a part of the United States. Truly, the exotic spell of the tropics is here, and our sightseeing will show us expansive white sand beaches, lovely old villages, and colorful native life.

(Continued on next page)

Gordon Conklin, Editor
Box 370-T
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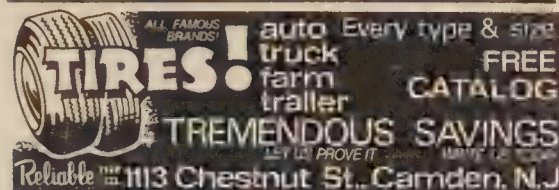
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 7. Change in a wart or mole.
- None of these is a sure sign of cancer. But if one lasts more than 2 weeks, see your doctor at once. It's worth it in peace of mind alone.

American Cancer Society

American Agriculturist, October, 1972

St. Thomas is best known of the Virgin Islands. Its capital and harbor city, Charlotte Amalie, stretches upward from the sea to beautiful hills overlooking the ocean. Here is a real shopper's paradise! Narrow lanes are lined with fascinating shops where you can find all sorts of bargains, duty free.

This brief summary cannot begin to tell you of the fun you will have or all that you will see on this Caribbean Holiday. For further information, fill out the coupon, and you will receive a copy of the illustrated itinerary and complete cost information. You'll have no regrets if you go along with us on this cruise. You'll never believe a vacation could be so wonderful!

Hurry! Hurry!

If you act at once, it's still possible to join our **MV New Shoreham Cape & Islands Cruise** from October 23 to 28. The ship is reserved exclusively for readers and friends of **AMERICAN AGRICULTURIST**, and we will visit Block Island, Cuttyhunk Island, Cape Cod, Martha's Vineyard and Naushon Island.

If you don't take the Cape & Islands Cruise, we'd love to see you at our **Get Acquainted & Reunion Weekend**, October 27 to 29, at the Buck Hill Inn in Pennsylvania's beautiful Pocono Mountains. In addition to the lovely surroundings and fine meals, you'll enjoy the sight-seeing, programs of slides and travel movies, and good fellowship with some wonderful people.

And, of course, don't forget the wonderful **Thanksgiving in Bermuda Holiday** from November 19 to 24. Our home on this magic island will be the luxurious Princess Hotel, where there is something interesting to do every minute of the day and far into the night. It's fun to explore in a horse-drawn carriage, tiny taxi, or on a bicycle, and there are many interesting places to visit not far from the Princess. Make your reservations at once.



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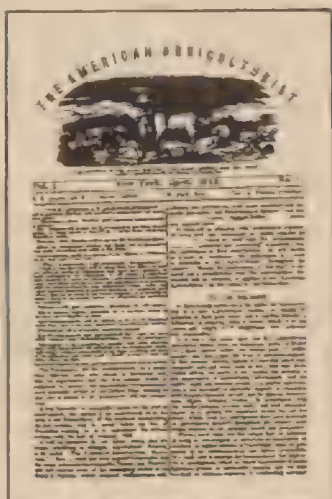
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American Agriculturist, October, 1972



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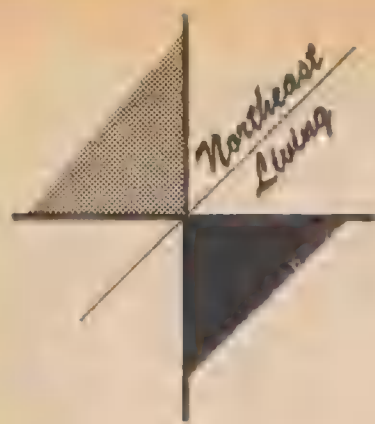
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Those Popular Casseroles!

by Alberta Shackelton

What cook doesn't love casserole cookery and its do-ahead convenience for the day's meal, or to freeze for future use! Trading favorite "company" casserole recipes for home use and dish-to-share affairs is always fun too. A "wardrobe" of attractive and inexpensive oven-to-table dishes in different sizes and shapes, colors and designs, and with or without covers, is sure to add glamor to your casserole cookery.

Casserole Tips

Light greasing of casseroles with salad oil or a piece of buttered soft bread (may be cut into casserole after use) will make for easier clean-up. Be sure to follow directions for cooking any pasta and do not overcook; also, do not rinse unless it is to be used for salad. When using pastas in casseroles, check moisture of mixture during baking; sometimes it is necessary to add a little more liquid.

Freezing: Don't over-salt or over-season; don't overcook and cool quickly before packaging. A slick freezing trick is to line casserole with heavy foil, leaving long ends of foil extended. Fill, fold over foil completely, seal, freeze, remove frozen foiled block of food, and store. On serving day, remove foil and place food in same container to heat and serve. This keeps your casseroles in circulation.

BEACHCOMBER BEEF CASSEROLE

- 2 pounds ground beef
- 1 medium-sized onion, chopped
- 1 to 2 tablespoons fat or salad oil
- 1 to 2 teaspoons salt
- ¼ teaspoon pepper
- 1 can tomatoes (about 3 cups)
- 1 package (8 ozs.) shell macaroni, cooked according to label directions

Break meat into 1-inch cubes. Lightly brown meat and onions in hot fat, stirring occasionally. Pour off all but 2 tablespoons of drippings. Stir in salt, pepper and tomatoes and lightly stir cooked shells into mixture. Turn into a 2½-quart casserole.

UNKINDEST CUT

by Donna Evleth

When I slice cake, what often comes is nothing but a heap of crumbs; And pudding's what I get when I Make efforts to divide a pie.

While when a roast is what I slash, My product looks much more like hash. The truth is out, I can't rebut it; It really seems I just can't cut it!

Cover and bake in a preheated moderate oven (350°) for 45 minutes. Serves 8 to 10.

MEAT AND VEGETABLE CASSEROLE (U.S.D.A.)

- 1½ pounds ground beef or pork
- 2 tablespoons chopped onion
- 1 tablespoon fat or oil if desired
- 1 can cream of celery or mushroom soup
- 1 package frozen lima beans, cooked
- 1¼ cups thinly sliced carrots, cooked
- ½ cup liquid from cooked vegetables
- 1½ teaspoons salt
- 6 tomato slices, ¾-inch thick
- ¼ teaspoon salt
- 2 tablespoons grated parmesan cheese, if desired

Cook ground meat and onion in fat or in ungreased frying pan until lightly browned and onion is transparent. Pour off drippings. Add soup, vegetables, vegetable liquid and salt. Mix well. Pour into a 2-quart casserole. Arrange tomato slices on top of mixture and sprinkle with salt and cheese. Bake 30 to 40 minutes in a preheated moderate oven (350°). Makes 6 one-cup servings.

Note: Drained whole or halves of canned tomatoes may be substituted for fresh tomato slices. Tomatoes may be omitted entirely and mixture topped with onion and green pepper rings.

CASSEROLE OF CHICKEN MELANGE

- 3 cups cooked rice
- 4 cups cut-up cooked chicken
- 1 pkg. frozen peas, cooked
- 1½ to 2 cups sauteed fresh or canned mushrooms
- 3 tablespoons chopped pimiento
- 12 large pitted black olives, halved lengthwise
- 1 cup toasted slivered almonds
- 3 cups well seasoned chicken gravy, medium thickness
- 1 can cream of chicken soup, undiluted
- Buttered crumbs

Starting with rice, place in alternate layers in a greased shallow 2½-quart casserole the rice, chicken, peas and sauce. Arrange over each layer the mushrooms, pimientos, olives and almonds. Top with buttered crumbs. Bake in preheated moderate oven (350°) 20 to 30 minutes, until heated through and crumbs lightly browned. Serves about 16.

Note: Casserole may be assembled early in day and slipped into the oven ahead of serving time to heat thoroughly, or it may be frozen for later use. To serve fewer persons,



Photo: National Live Stock & Meat Board

Most casserole dishes are economical, easy to prepare and suitable to serve guests as well as family. Shown here is Beachcomber Beef Casserole.

place mixture in two smaller casseroles, baking one for immediate use and freezing other one.

Canned chicken gravy may be used, or thicken broth made from bouillon cubes with ½ cup flour. Also, turkey, ham, or a combination of seafood may be substituted for the chicken.

TURKEY CASSEROLE

- 1 small package seasoned poultry stuffing mix, prepared according to label directions
- 3 cups cut-up, cooked turkey
- ½ to ¾ cup butter
- ½ cup flour
- 4 cups turkey or chicken broth
- 5 eggs, slightly beaten
- Buttered crumbs

Cover bottom of a greased oblong baking dish (about 13×2×2 inches) with the stuffing mix. Arrange turkey cubes over dressing. Melt butter, stir in flour, and gradually stir in milk. Cook over medium heat until thickened. Stir a small amount into the beaten eggs, then stir this mixture into the remaining eggs.

Pour sauce over turkey and sprinkle with fine buttered crumbs. Bake in preheated moderate oven (350°) 35 to 45 minutes, or until knife edge inserted in center comes out clean. Serve with Mushroom Sauce to 8 or 10 people.

To make Mushroom Sauce, combine 1 10-oz. can cream of mushroom soup, ½ cup milk, 1 cup dairy sour cream, and 3 tablespoons chopped pimiento.

VEAL AND NOODLE SUPREME

- 2 pounds boneless veal, cubed
- ¼ cup flour
- 1 teaspoon salt
- ¼ teaspoon pepper
- ¼ cup butter or margarine
- ½ cup chopped onion
- 1 cup water
- 1 small package medium noodles, cooked and drained
- 1 cup sliced mushrooms, canned or freshly cooked
- 1 teaspoon celery seed
- 1 cup dairy sour cream
- Buttered crumbs

Combine flour, salt and pepper in a paper bag and shake veal cubes in bag until coated. Brown cubes in fat. Add onion and cook until transparent. Add water and simmer

covered for 45 to 60 minutes, or until meat is tender.

Combine veal cubes, noodles, mushrooms, celery seed and sour cream; season with salt as needed. Place in buttered 1½-quart casserole and top with buttered crumbs.

Bake in preheated moderate oven (350°) about 25 minutes or until heated through and lightly browned on top. If additional moisture appears to be needed during baking, add a small amount of milk as required. Serves 6.

SALMON SQUARES WITH MUSHROOM SAUCE

- 1 1-lb. can salmon
- 1 cup cooked rice
- 2 cups soft bread crumbs
- 1 cup grated sharp cheese
- ½ cup diced celery
- ¼ cup chopped pimiento
- 2 cups milk
- 4 eggs, slightly beaten

Remove bones from salmon and drain, reserving the liquid. Combine salmon, rice, bread crumbs, cheese, celery and pimiento. To salmon liquid, add enough milk to make 2 cups and stir into beaten eggs; then stir into salmon mixture.

Place in a greased medium-sized square or oblong pan and bake in preheated moderate oven (350°) 30 to 40 minutes, or until set. Cut in squares to serve with Mushroom Sauce (see recipe at end of Turkey Casserole). Serves 6 to 8.

"DELIZIA" SPAGHETTI

Cook ½ pound spaghetti according to package directions and drain. Cook 1 finely chopped onion, 1 chopped green pepper and 1 clove garlic (if desired) in 3 tablespoons salad oil until tender and add to spaghetti. Add 1 can tomato soup, ½ teaspoon salt, ½ teaspoon pepper, ½ tablespoon Worcestershire sauce, ½ cup grated sharp cheese and 1 can whole kernel corn.

Thin 1 pound ground meat with a little cold water to prevent lumping and add to above mixture. Stir over a low fire until well heated through. Turn into a greased 2-quart casserole, sprinkle generously with grated cheese, and bake 25 to 30 minutes. Serves 8 to 10.

American Agriculturist, October, 1972

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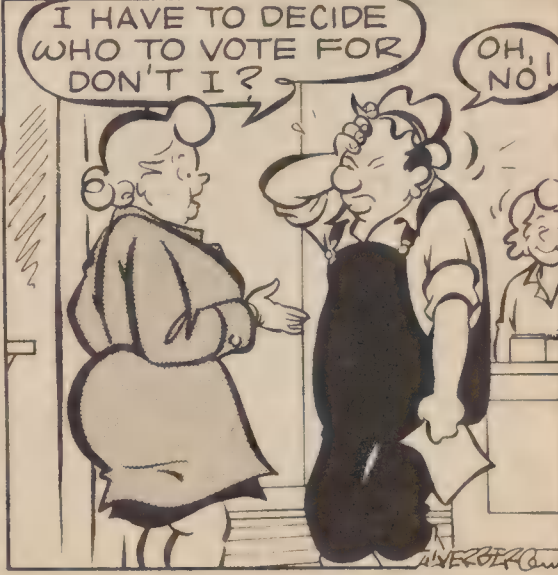
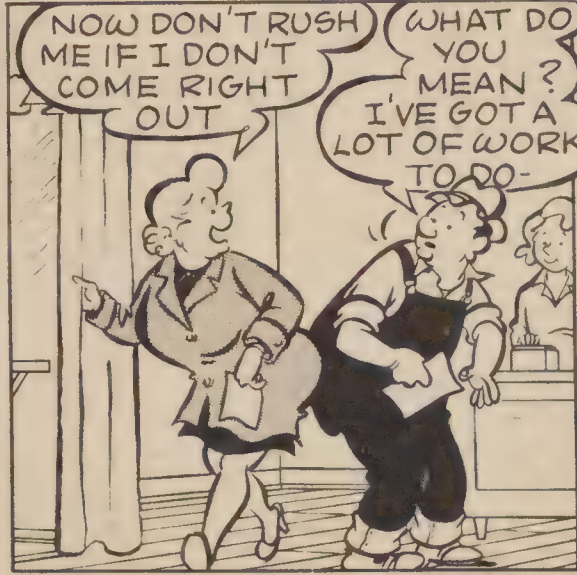
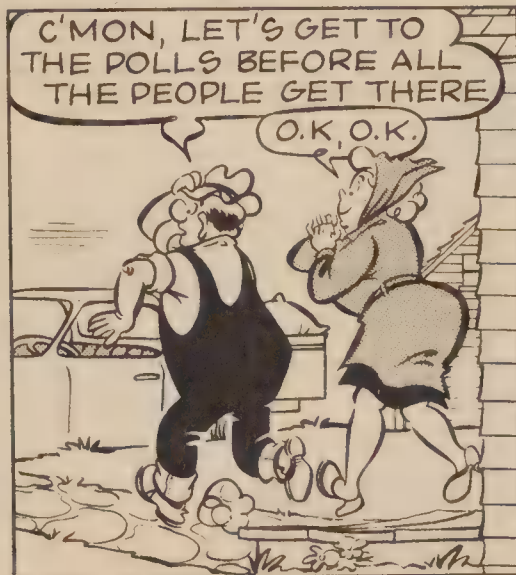
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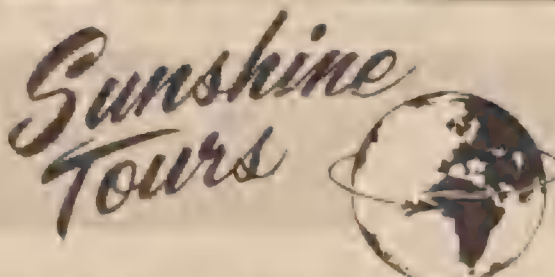
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American Agriculturist, October, 1972

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Reserve Grand Champion — Hominy Hill Feroz, Edward Shurick, Charlottesville, Virginia.

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Reserve Grand Champion — KF Numode Miss C5d, Kiyiwana Farm, Stormville.

Bulls:

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Junior and Reserve Grand Champion — K F Adv. Numode 513, Kiyiwana Farm, Stormville.

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Bulls:

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Hampshire — Grand Champion

boar and Grand Champion sow, Franklin Feeser, Taneytown, Maryland.

Poland China — Grand Champion boar and Grand Champion sow, Richard P. Sholley, Jonestown, Pennsylvania.

Yorkshire — Grand Champion boar, Reno Thomas, Beavertown, Pennsylvania; Grand Champion sow, Ralph Blick, Williamson.

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Exhibitors of champion rams in the various breeds were:

Cheviot — Eloise Spraker, Brooklea Farm, Bath; Columbia — Joseph Lawson & Son, Pavilion; Corriedale — James and Lisa Dunham, Hamilton; Dorset — Michael Carpenter, Jefferson, Maryland; Hampshire — Betsey Burt, Stonewall Farm, Hillsboro, New Hampshire; Oxford — Oliver Farms,

Michael Carpenter, Red Rock Farm, Jefferson, Maryland; Hampshire — Kenneth Moore, Nichols; Oxford — Glenn Botsford, Scipio Center; Rambouillet — Kenneth Moore, Nichols; Shropshire — Kenneth Moore, Nichols; Southdown — Teri Lee Cook, Trumansburg; Suffolk — William Rose, III, North Windham, Connecticut; Tunis — Eloise Spraker, Brooklea Farm, Bath.

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Cheviot — Eloise Spraker, Bath; Columbia — Joseph Lawson & Son, Pavilion; Corriedale — James and Lisa Dunham, Hamilton; Dorset — Michael Carpenter, Jefferson, Maryland; Hampshire — Betsey Burt, Stonewall Farm, Hillsboro, New Hampshire; Oxford — Oliver Farms,

Marcellus; Rambouillet — Kenneth Moore, Nichols; Schropshire — Kenneth Moore, Nichols; Southdown — Jill Anne Thompson, Chepachet, Rhode Island; Suffolk — Robert and John Whyte, Wrentham, Massachusetts; Tunis — Colleen Fitzpatrick, Wayland.

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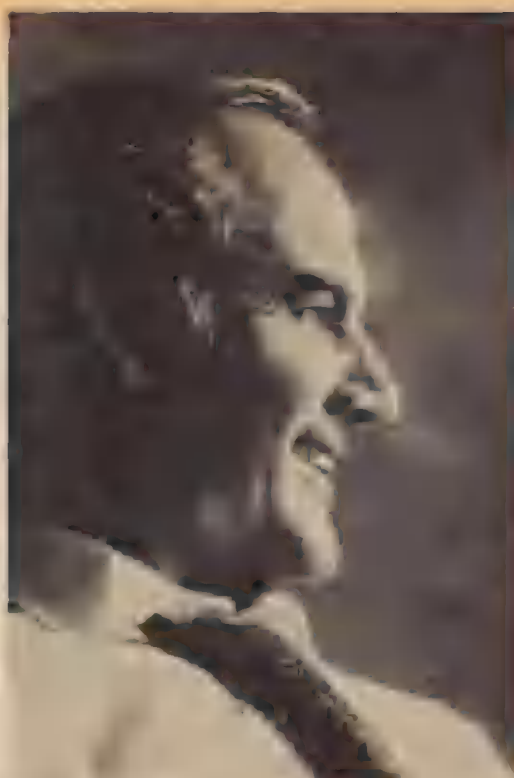
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George McGovern



Richard Nixon

Where they stand

by James Thomson

Editor's Note: Jim Thomson, editor of the *Prairie Farmer*, has for 22 years written a column entitled "Agri-politics." He's as knowledgeable as anyone concerning the realities of the political arena, and how they affect farmers.

FARMERS will have the rare privilege of a clean-cut choice of candidates for president on November 7. They are poles apart on farm policy.

On the minor motherhood-and-flag issues, both Republicans and Democrats see things pretty much alike. Both speak reverently of the family farm, and pledge its survival. Both want improved credit sources and improved marketing. Both are for fair farm prices and rural development, etc.

On the major farm issues, however, the ideological gulf between Nixon and McGovern is deep and wide. It is these issues which will no doubt have the greatest influence on the farmer's decision whether to vote for Richard Nixon or George McGovern.

Advantage

The Republicans have a lot going for them. They are in power, and they have a Secretary of Agriculture who is deadly in verbal combat. He is the farmer's anointed spokesman for agriculture. As one farmer told us recently, "I just glow when I hear Butz speak up to those people who gripe about food prices."

Most farmers we've talked with appear to feel that the administration's set-aside program has been reasonably successful. Some grain surplus problems were developing, but these have been swept away by the aggressive buying of wheat, feed grains and soybeans by the USSR.

So the administration is riding the crest of a surge of optimism, at least among farmers in the heartlands of America. The parity ratio, which fell to a Nixon low of 67 percent in December of 1970, has bounced back to 76 percent. The parity ratio for the Midwest's four main commodities... corn, hogs, fed beef and soybeans... is now at a buoyant 80 percent of parity.

Northeastern dairymen, although suffering from the effects of adverse weather, are enjoying a favorable milk-feed price ratio. Nationally, dairy cash receipts during 1972 are expected to be \$7 billion, up \$200 million from 1971.

Butz adds to the general optimism by predicting all-time-high net farm income exceeding \$18 billion, nearly \$2 billion higher than last year. He also expects farm exports to reach \$9.5 billion for the year ending next June 30. The previous all-time high was \$8.1 billion last year.

Opponent

Against this rosy picture, McGovern takes the tack that things should be better on the farm. He speaks of the Nixon parity low of 67 percent as "the worst since the depression." He also says that between 50,000 and 75,000 families are being "driven off the land each year."

The contrast in farm policy positions between Nixon and McGovern may also relate to your farm organization membership. Senator McGovern's farm views are virtually the same as the Dakota-dominated National Farmers Union, and more recently like that of the National Coalition of Farm Organizations which includes the Farmers Union, NFO, and the National Grange.

At a recent meeting, the Farm Coalition drew up a position paper that virtually has been endorsed by Senator McGovern. It is on these basic principles that McGovern and the Farm Coalition are aligned against the Nixon-Butz administration and the American Farm Bureau Federation. However, the AFBF does not endorse candidates and does not wholly agree with the administration on farm policy.

Supply Management

McGovern wants a strong system of supply management... production and marketing control directed from Washington. This would be coupled to large reserve supplies of wheat and feed grains for emergencies.

The controls he favors would be compensated for with high parity price supports. Earlier, McGovern spoke of 100 percent of parity for farmers... which Butz scorned as "irresponsible, unrealistic, and unattainable, except in wartime."

The McGovern proposal would replace the present set-aside program (which expires December 21, 1973) with supply management and higher price supports. More recently, he has scaled these down from 100 percent to 90 percent of parity. McGovern says he will replace Butz with a "dirt farmer."

He is said to favor William Guy,

who is governor of North Dakota. Governor Guy owns a farm, but hasn't farmed in years.

Butz, an agricultural economist, is hostile to the whole concept of high rigid price supports and supply management. He also considers an emergency reserve of grains "too expensive, and virtually worthless."

Coolness

The coolness between Butz and McGovern is not surprising. They disagree in basic philosophy, and on which direction farm policy should move. McGovern voted against the confirmation of Butz as Secretary and said, "... his confirmation would be a catastrophe." Later, speaking about the McGovern candidacy, Butz said, "I would like to return the compliment."

Some of the McGovern positions that bother many farmers are his advocacy of a capital gains tax at death. This would add another burden to the inheritance taxes already paid on the transfer of a farm from one generation to another.

McGovern says he would exempt farmers and small businessmen. But lawyers say such an exemption would no doubt be declared unconstitutional as discriminatory.

McGovern also favors an end to the 7-percent investment credit on new equipment... which most farmers seem to favor.

If you could isolate the farm policies of both sides, you might be able to come to a simple decision as between the conservative (less government) policies of the Republicans and the liberal (more government) policies of the Democrats.

But it isn't that easy. Policy and principle ramify into every other sector of American economic and social life. More and more, the polarization is emerging as between liberal and conservative.

Battle

This was the battle that raged throughout the Democratic convention. The young liberals triumphed, and the old pros were humiliated.

The lack of restraint on the part of the young liberals may prove the undoing of the McGovern candidacy. The fact that seemed to escape them is that it takes more than the young to win an election.

A similar battle erupted in the Republican convention, but the conservatives triumphed. Now the lines are clearly drawn as a battle between the McGovern liberals and

the Nixon conservatives.

McGovern favors the following positions on which the administration is likewarm or opposed: lettuce boycott in support of Cesar Chavez, commodity program benefits should be for family farms only (99 percent of the nation's farms are family farms), cost-plus international commodity agreements, marketing orders for all commodities, keep non-farm corporations out of farming, and prohibit tax-loss farming.

In a nutshell, the difference between McGovern and Nixon is the difference between dependence on government (Farm Coalition-McGovern), and independence of government (Farm Bureau-Butz).

Non-Farm Issues

Farmers also will examine the non-farm views of the candidates as well. Nixon's approach won't change much from where we are. On the other hand, McGovern plans to "soak the rich" with higher taxes. But his extensive spending plans for welfare will have to be financed by more taxpayers than just the rich. Nixon is also vulnerable to the criticism that his spending has produced annual deficits that are intolerable.

There seems to be little doubt that the McGovern plans for massive spending would mean much higher taxes and/or more inflation. He speaks of closing tax loopholes, but the little fellow who gets a tax deduction for interest paid on his mortgage hasn't learned yet that he too has a tax loophole.

McGovern has scaled down some of his welfare programs... such as the \$1,000 annual payment to everyone. Now he says it will go only to those who need it. He suggested a minimum handout of \$6,500 for a family of four, but has since scaled that down to \$4,000.

He would get us out of the Vietnam war immediately at any price. He would grant amnesty to all draft dodgers, and double the spending on education as well as welfare.

McGovern favors forced busing for racial integration, would cut back defense spending, increase rent subsidies, and guarantee you a job even if he has to put you on the public payroll.

McGovern has also expressed himself in favor of legalizing marijuana, and abortion on request. At convention time, however, he soft-pedaled these issues, saying they were state responsibilities. Nixon has expressed opposition to both.

American Agriculturist, October, 1972

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Early this year, a subscriber sent us some promotion material received from Market Development Corporation of Cincinnati. The Better Business Bureau sent a report which named that firm, along with Budget Discount, Budget Sales, J. D. Anderson Company, RA Advertising, Domestic Sales and Service, and KDA Research Analysis, as being trade styles which have been used by Raymond Anderson in his promotions.

The general pattern is that letters are sent in large quantities to potential customers stating that their lucky numbers have been computer-selected as sweepstakes prize winners. All they have to do is fill in an acceptance form and they will receive a treasure chest of household and cosmetic products plus a special price reduction on a zigzag sewing machine, vacuum cleaner, or some other home appliance.

Also offered are "free" vacation certificates, requiring a \$10 or \$15 fee for "registering and guaranteeing confirmation." Recipients should examine the terms under which "free" lodging is furnished. Transportation and meals are not included, and participants may be pressured to purchase real estate.

There are variations in the offers made, but the general trend remains constant. The apparent purpose is to get into customers' homes to try to sell (at higher prices) items other than those promoted or advertised.

In 1958, Raymond Anderson was ordered by the Federal Trade Commission to stop representing directly or by implication that certain mer-

chandise was offered for sale when such offer was not a bona fide one. Also banned were certain guarantee claims on appliances.

In a January 14, 1972 civil action, the federal government filed suit against Raymond Anderson to recover civil penalties for alleged violations of the 1958 FTC Final Order, charging 20 counts of alleged violations.

In spite of this background, Market Development Corporation continues to circulate promotion material.

Readers should beware of such "lucky number" contests. The two subscribers who sent the material to us are to be congratulated for seeing through the something-for-nothing offers.

HISTORIC DECISION

Legislation concerning division fences was first enacted in New York State in 1788. A July decision of the Appellate Division of the New York State Supreme Court found that certain parts of the Town Law, insofar as they apply to line fences between property owners, are unconstitutional.

The essence of the decision is that an adjoining land owner who does not keep livestock cannot be forced to share the cost of a division fence for the benefit of his neighbor. The Court decided that requiring him to do so "is not reasonably necessary to any legitimate public purpose and is oppressive."

We have been told that the case in question will probably be appealed. However, until such time as this actually comes before the Court of Appeals and a decision is reached, it would appear that the long-time statute, which required adjoining land owners to build and maintain their "just and equitable" portion of the division fence unless they both agreed to allow their lands to lie open, no longer applies.

ALEXANDER SALES BANKRUPT

During 1971, the Service Bureau carried two items about Alexander Sales Corporation of Mount Vernon, New York. Apparently the names of American Family Book Services, Crescent House, and Empire La Vive also were used by owner Emanuel Piller.

All four companies were placed under a restraining order by a Supreme Court Justice last year, and were directed to establish an escrow account to assure refunds to their customers.

Recently we were advised by the Office of Attorney General Louis J. Lefkowitz that Alexander Sales is now in complete bankruptcy. Proceedings to liquidate the assets have begun.

Claims against this firm should be filed promptly with The Honorable Howard Schwartzberg, Referee in Bankruptcy, 30 South Broadway, Yonkers, New York 10706.

A friend's name may be in this list of

Accident Benefits Paid

Most of these folks have several accident policies.

A combination of North American policies provides broad coverage with large payments for both medical expenses and extra income while in or out of the hospital.

Earl F. Gray, Altamont, N.Y.	.....\$ 413.73	Paul Bailey, Albion, N.Y.	.....\$ 450.00
Auto accident—inj. knee, shoulder		Fell—broke ankle	
Frederick Warner, Belmont, N.Y.	..... 398.21	Bart Miano, Oswego, N.Y.	..... 451.73
Fell against horse—broke elbow		Auto accident—injured neck	
Donald Palmatier, Wellsville, N.Y.	..... 538.44	Ernest Sherman, Fulton, N.Y.	..... 4000.00
Slipped—fractured ankle		Auto accident—killed	
Robert E. Lindow, Chenango Forks, N.Y.	..... 131.00	E. VanDerwerker, Cherry Valley, N.Y.	..... 328.43
Hit by cow—broke finger		Riding bike—broke wrist	
Lillian C. Mahnen, Deposit, N.Y.	..... 1048.57	A. Steckler, Richfield Sprgs., N.Y.	..... 390.41
Tripped and fell—multiple injuries		Fell on steps—injured teeth	
Harold Reed, Cattaraugus, N.Y.	..... 549.07	Stuart A. Hurlburt, Jr., Oneonta, N.Y.	..... 248.57
Slipped on jointer—cut finger		Auto accident—injured head	
Ruby E. Keesler, Machias, N.Y.	..... 1527.93	Sherman Harrington, Hoosick Falls, N.Y.	..... 162.00
Auto accident—broke jaw, leg		Slipped getting off tractor—injured back	
Joseph Staehr, Auburn, N.Y.	..... 392.36	Daniel Basford, Heuvelton, N.Y.	..... 781.32
Fell from combine—broke foot		Pushing a forklift—internal injury	
Raymond M. Frost, Moravia, N.Y.	..... 215.71	Cynthia Brice, DeKalb Jct., N.Y.	..... 222.25
Caught in gears—broke thumb		Auto acc.—injured ankle	
Libbie M. Caruso, Westfield, N.Y.	..... 302.77	Christopher Baildon, Ogdensburg, N.Y.	..... 158.19
Hit by vineyard post—broke thumb		Fell into camp fire—burned arm, hand	
Ben J. Whitney, Clymer, N.Y.	..... 604.30	Beatrice Fenton, Corinth, N.Y.	..... 280.23
Tractor accident—broke nose		Auto acc.—cuts & bruises	
Victor J. Bielke, Pine City, N.Y.	..... 2000.00	Deborah Fenton, Corinth, N.Y.	..... 588.57
Tractor overturned—killed		Auto acc.—injured spine	
Richard Usack, Erin, N.Y.	..... 150.00	C. Graveling, Schenectady, N.Y.	..... 431.00
Fell—broke tooth		Slipped on ice—injured back	
Melvin W. Stewart, New Berlin, N.Y.	..... 142.86	Estella N. Mereness, Cobleskill, N.Y.	..... 983.26
Caught between cows and stanchion—broke hand		Fell from ladder—broke arm	
John J. Graham, Smyrna, N.Y.	..... 286.39	R. R. Stockton, Sharon Springs, N.Y.	..... 5860.02
Fell carrying lumber—inj. abdomen		Auto accident—head, chest, inj.	
Joann M. Manley, Ellenburg Depot, N.Y.	..... 545.71	Laverne J. Noble, Seneca Falls, N.Y.	..... 207.14
Auto accident—head injuries		Fell from scaffold—injured back	
Frederick Bosworth, Cortland, N.Y.	..... 545.28	Robert Thompson, Interlaken, N.Y.	..... 100.00
Stepped on by cow—broke ankle		Tripped over portable heater—broke elbow	
Jerry D. Mowry, Homer, N.Y.	..... 1260.35	William E. Brewer, Waterloo, N.Y.	..... 1235.00
Auto accident—broke hip, ribs		Lifting large box—twisted back	
Russell A. Cameron, DeLancey, N.Y.	..... 167.10	Leo Dickson, Cameron Mills, N.Y.	..... 450.00
Kicked by horse—cut hand		Gored by cow—inj. hand	
Arnold K. Dibble, Hobart, N.Y.	..... 319.10	Horace Corell, Hammondsport, N.Y.	..... 2194.61
Fell from wagon into P.T.O.—inj. chest		Hit by bull—inj. leg	
William Winiarski, West Seneca, N.Y.	..... 1595.00	Mary H. Griffin, Addison, N.Y.	..... 1405.00
Piece of metal fell—broke ankle		Grain drill acc.—inj. hip	
Elaude Quellet, Keesville, N.Y.	..... 766.63	Lloyd E. Terry, Orient, N.Y.	..... 1421.42
Fell—broke foot		Auto acc.—multi. cuts, head, leg	
Emile Quellet, Keesville, N.Y.	..... 187.00	Robin S. Schumacher, Candor, N.Y.	..... 1138.21
Bicycle acc.—broke toes		Kicked by cow—inj. stomach	
Saitan A. Yelle, Fort Covington, N.Y.	..... 186.42	Paul J. Hardesty, Willseyville, N.Y.	..... 514.70
Unplugging corn chopper—cut finger		Hit with bowling ball—inj. ankle	
Patrick A. Avery, North Bangor, N.Y.	..... 249.65	Jack Gehm, Berkshire, N.Y.	..... 281.00
Fell—injured jaw		Pulling spike, hit teeth—broke teeth	
Edward J. McRedmond, Johnstown, N.Y.	..... 103.00	John A. MacLean, Groton, N.Y.	..... 120.00
Shaft fell on thumb—broken & bruised		Jumped from platform—injured ankle	
Gary G. Argotsinger, Gloversville, N.Y.	..... 184.28	William J. Lesnick, McLean, N.Y.	..... 176.93
Thrown off snowmobile—injured leg		Fell carrying groceries—injured thigh	
Daniel L. Coughlin, Elba, N.Y.	..... 326.20	Grace A. Todd, Ellenville, N.Y.	..... 2600.00
Playing football—cut leg		Auto acc.—killed	
Thomas Krenzer, LeRoy, N.Y.	..... 1042.34	Roscoe Storey, Argyle, N.Y.	..... 1130.00
Fell from car—frac. skull, cuts		Fence post flew while sawing—broke jaw	
James C. Beers, Catskill, N.Y.	..... 158.57	Christopher Miraglia, Macedon, N.Y.	..... 506.42
Fell—cut hand		Slipped on ladder—inj. back	
Francis Barberio, Frankfort, N.Y.	..... 611.72	Juliana Doolidge, Ontario, N.Y.	..... 423.50
Tripped down stairs—inj. knee		Caught in washer wringer—cut hand	
Howard L. Wakefield, W. Winfield, N.Y.	..... 216.77	Sue K. Daansen, Palmyra, N.Y.	..... 1404.99
Caught in oat crimper—cut finger		Fell down stairs—broken leg	
J. Wesley Henderson, Elmira Mills, N.Y.	..... 264.40	Chester Meyer, Arcade, N.Y.	..... 717.42
Fell from ladder—broke wrist		Kicked by cow—inj. thigh	
Amelia V. Stoffle, Glenfield, N.Y.	..... 1599.98	Marion A. Brown, Bliss, N.Y.	..... 1290.00
Knocked down by cow—broke knee		Slipped & fell—broke hip	
Frank Tucker, Greig, N.Y.	..... 1790.00	Donald Bliss, Dundee, N.Y.	..... 318.50
Starting tractor, caught fire—burned legs		Working on car, feet slipped—inj. back	
Brayton McOmber, Lowville, N.Y.	..... 1610.68	Mina Gee, Dundee, N.Y.	..... 235.85
Rope wrapped around arm—injured arm		Fell—injured ankle	
Howard L. March, Munsville, N.Y.	..... 1162.84	Clarence C. Schall, Westfield, Pa.	..... 292.85
Car fell—crushed chest		Plow blade fell—broke toe	
Mary E. Devine, Chittenango, N.Y.	..... 434.00	Rexford Paris, Towanda, Pa.	..... 624.81
Fell—broke wrist		Putting roof on barn—burns & inf. leg	
Harold J. Aman, Fairport, N.Y.	..... 465.70	Layton J. Calkins, Troy, Pa.	..... 1802.14
Fell off tractor—inj. shoulder, broke wrist		Slipped & fell—inj. back	
Luther Unterborn, Hamlin, N.Y.	..... 5000.00	Robert Niedermeyer, Springboro, Pa.	..... 1247.14
Auto accident—killed		Hit playing basketball—broke jaw	
Grant W. VanLoan, Fort Plain, N.Y.	..... 757.97	Nelson E. Wheelock, Townville, Pa.	..... 1360.00
Caught in jack—crushing finger		Fell on ice—broke hip	
Raymond Nagele, St. Johnsville, N.Y.	..... 881.90	Thomas Lawrence, Jamesburg, N.J.	..... 824.70
Slipped on rug—broke ankle		Auto accident—inj. neck, back	
Betty Austin, Gasport, N.Y.	..... 114.00	Frank Astalosh, Pennington, N.J.	..... 978.75
Slipped and fell—cut face, inj. tooth		Bumped by cow—inj. knee	
David R. Deal, Vernon Center, N.Y.	..... 1304.28	John R. Thomas, Belvedere, N.J.	..... 600.00
Pushed by cow—broke ankle		Thrown from motorcycle—broke collarbone	
James Foley, Waterville, N.Y.	..... 1141.42	Roger W. Cline, Stockton, N.J.	..... 304.57
Auto accident—cuts, bruises, broken teeth		Gun powder exploded—burned face	
Arthur Walters, Manlius, N.Y.	..... 1703.55	Richard Sloan, Newport, Vt.	..... 513.80
Kicked by cow—broke foot		Fell off bike—injured chest	
Patrick Frazee, Fabius, N.Y.	..... 215.55	Kevin Murray, Hinesburg, Vt.	..... 268.70
Wrestling—broke leg		Kicked by cow—broke hand	
Duane Albrecht, Phelps, N.Y.	..... 1008.03	Francis R. Brown, Brattleboro, Vt.	..... 1140.44
Tire blew up—broke arm		Twisted knee	
Julia Prichard, Stanley, N.Y.	..... 343.34	Guy E. Smith, Vergennes, Vt.	..... 552.00
Fell off ladder—cut scalp & elbow		Lifting heavy object—injured ankle	
Cornelia Hoekstra, Middletown, N.Y. 1269.28	Clesson Lamb, Warren, Vt. 533.57
Fell—broke hip		Auto acc.—injured hip & pelvis	

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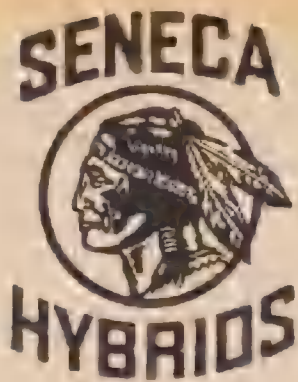
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Seneca XR17	Seneca 325 (New)	Seneca 318
Seneca 238 (New)	Seneca XX316	Seneca 350
Seneca 285		Seneca 690

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NOW: ventilate the right way... The VENT-O-MATIC way...



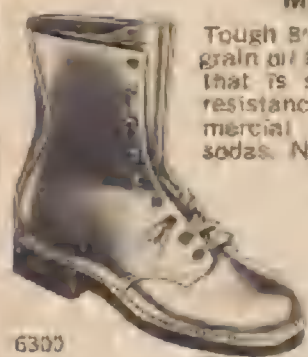
Vent-O-Matic's farm air conditioner has proven to be the TOPS in ventilation... Why? ... because it's not a stop-and-go fan, it's a 2 level 3 volume "Satisfaction Guaranteed" unit that removes stale, germ-laden air from an entire enclosed area continuously.

The Vent-O-Matic farm air conditioner will give you the right environment for your poultry, cattle, hogs, and other livestock, all the time. Vent-O-Matic also has available a complete line of package fans that work in conjunction with the farm air conditioner, or alone.

Vent-O-Matic can fill your need in ventilation *The Right Way*

AGWAY

See your local Agway Store or Representative soon.

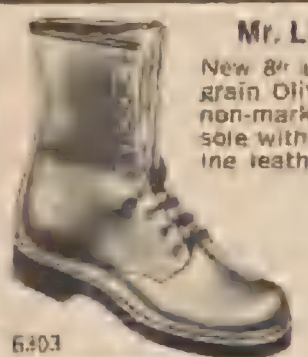


Mr. Value - Senior

Tough 8" boot is made from full grain oil tanned Red Cedar leather that is specially chosen for its resistance to barnyard acid, commercial fertilizer and caustic sodas. Non-skid cork sole.

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B 7-12, 13, 14, 15
C 7-12, 13, 14
D 6-12, 13, 14, 15
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EEE 5-12, 13



Mr. Lightweight - Senior

New 8" utility boot features full grain Olive tanned uppers. Super non-marking Neoprene crepe outsole with no trip heel, plus genuine leather insole and arch lift.

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D 6-12, 13, 14, 15
E 6-12, 13, 14
EE 6-12, 13, 14
EEE 7-12, 13

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The 24-karat timber

by Damon E. Ormsby*

SINCE before the time of the white man, black walnut has been one of the most highly-prized forest trees of the mid-western and eastern portions of our country. To the American Indian, walnuts offered a source of food, the nut husks were used for dyeing purposes, and its evenly-splitting grain gave the wood a great usefulness for tool handles and other implements.

During early colonial days the beautifully-patterned grain was soon sought after for fine furniture and other specialty items. In fact, through the years the demand for black walnut has increased to the extent that the lumber industry is now faced with a serious shortage of merchantable walnut timber.

In view of this decreased supply, many agencies, both public and private, as well as many interested individuals, have recently sought to stimulate interest in the black walnut as a valuable crop tree. Of course the excellent price paid for good walnut logs is incentive enough. Black walnut is by far the most valuable wood grown in New York State today.

However, before you get right down to establishing a black walnut plantation, let us examine some facts:

1. The best crops are grown on the best soils, and walnut is no exception. Studies have shown that good corn land is good walnut land. To be more specific, best growth occurs on deep, medium-textured soils having loose, well-drained subsoils.

2. Good crops are grown with much care. Thorough site preparation before planting, followed by cultivation, fertilization, and cultural treatment after the seedlings are established, are a must in growing good walnut.

Worth Time and Effort

Now you can see that growing black walnut is no "one-after-noon-every-spring" affair. However, a good many of us feel that it is well worth the time and effort. So if you are still interested, why not get started?

First, tell your wife to save her No. 2 or larger cans. Cut one end out, clean them up a bit, and store them until Fall.

While your wife is saving the cans, you can get out and scout around the countryside. What you are looking for is a large, open-grown black walnut tree that is likely to produce a good nut crop in the Fall. There are still a few of these around, and you can usually make an arrangement with the owner to collect some of the nuts.

Now that you have a seed source, it's time to prepare a site. Seed spots should be spaced about 11 feet by 14 feet. This may seem like quite a wide spacing, but even at this many stems will need removing prior to the end of the rotation. Several studies are now being conducted to produce the best use for the intermediate space in walnut plantations, but in the meantime, if you have a feeling for experimenting, you might try some of the Christmas tree species, with a Christmas tree yield as a secondary crop.

Preparing The Spot

There are any number of ways to prepare these walnut seed spots. Some people plow strips about six furrows wide, with the strips on 14-foot centers, and then prepare a seed spot by hand about every 14 feet along the strips... removing all competing vegetation within a four-foot circle. In any event, I feel that the seed spot itself should be about 18 inches in diameter, worked to a depth of about 16 to 18 inches.

O.K. Now it's September, and you are watching those ripening nuts closely. After a couple of frosts the nuts on the tree will start to yellow and begin dropping. You will have to be on the spot when they start to drop if you are going to beat the squirrels!

Now that you have collected a bag full of nuts, get them home and remove the husks. You can try husking them any way you like. I have tried using my feet, my hands, and an old corn sheller. The corn sheller works best... but they are usually hard to come by in this day and age. Immediately after husking the nuts, dump them in a tub of water; anything that floats throw away. The "floaters," as I call them, are usually blind nuts, and planting them will be a waste of time.

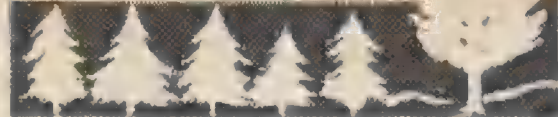
Planting

All right, now get those tin cans, and using a pair of tin snips or other sharp tool, cut or punch a 1-inch hole in the bottom of each can so that all of the jagged edges stick out. This is your rodent barrier, and very necessary for fall-planted nuts. You are now ready to plant.

At each seed spot hold a can in your hand (punched hole down) and put about an inch of dirt in the bottom. Next deposit one nut, and then fill the remainder of the can with loosely-packed earth. Turn the can back so that the punched hole is up, and place it down in your seed

(Continued on page 63)

FORESTRY



Defoliation — Damage to Connecticut woodlands by defoliating insects . . . mostly gypsy moths and elm spanworms . . . was less severe in 1972 than in 1971, when a record 655,107 acres were defoliated. This year's defoliated acreage totaled 513,880, a drop of 141,227. A wasp parasite killed almost all elm spanworm eggs in many towns in southwestern Connecticut, reports state entomologist John Anderson.

Woodsmen — Winner of the log loading contest at the New York State Woodsmen's Field Days at Boonville, New York, was **Herbert Preston**, Wyalusing, Pennsylvania. **Raymond Harvey**, North Adams, Massachusetts, won the log skidding competition. Other winners, all from New York unless otherwise indicated, were: one-man chainsawing, **Kenneth Stone**, Madison; bucksawing, **Alfred Brenenstuhl**, Schaghticoke;

log rolling, **Phil Sowle** and **Gary Sowle**, Galway; two-man cross-cut sawing, **Jim Van Scoy**, Ilion, and **Rudy Dettmer**, Morgantown, West Virginia; log-chopping, **Rudy Dettmer**; axe-throwing, **Gib Vrooman**, Fultonville.

Star Logger — Logging is the agribusiness career for 19-year-old **Edward Higley** of Brattleboro, Vermont . . . the Northeast's FFA Star Agribusinessman for 1972. During his last two years in high school, he cut and sold timber from his father's woodlot . . . and from investments of income, purchased a skidder, log loader and a truck and trailer to move logs to sawmills as far as 150 miles away. Higley has increased the scope of his forestry program from 36,000

board feet in 1968 to over 340,000 board feet this year, and now devotes full time to his logging enterprise.

Nut Trees — Excellent information about what is involved in producing high quality nut trees is available in a new booklet, "Propagating Nut Trees," published by Penn State. Successful methods of grafting are illustrated and explained, as well as how to choose varieties and select best planting sites. Copies are \$1.50 each (Pennsylvania residents add 6-percent sales tax).

Make checks or money orders payable to The Pennsylvania State University and send with your name and address to: Propagating Nut Trees, Box 6000, University Park, Pennsylvania 16802.

Star farmer

The FFA's Star American Farmer in the North Atlantic Region this year is dairyman **David Galley**, 20, of Walton, New York.

Dairy farming was a natural career choice for Galley, who grew up on a 65-cow family dairy farm. By the time he graduated from high school, he was renting a 210-acre farm and had built up a 50-cow herd. He is now married and he and his wife live on a 94-acre, 63-cow dairy farm they recently purchased.

A cash award of \$500 will be presented to Galley at the FFA National Convention in Kansas City, Missouri, in October.

24-Karat Timber

(Continued from page 62)

spot about half an inch below the surface. You're almost home now, with one remaining task. Get some straw or other type of mulch and spread about a two-inch layer over each seed spot.

You had better get in the house now, because your wife has a dozen chores waiting that you have let slide while you were "playing" with the walnuts out back.

Next spring, about late May or early June, keep watching those seed spots, and as the small seedlings begin to fight their way through the ground you can remove some of that mulch and get the hoe limbered up. Remember that for the first few years those seed spots will have to be kept relatively free of weeds and grass if the seedlings are going to get a good start.

Now get busy, and before you are ready to begin fertilizing, pruning, and thinning, check with your local state forester, or the Extension forester at your College of Agriculture for further information.

Good luck!



"Let's come back in a few days, Ed. They won't be in any mood inside to give us a farm loan today!"



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"In the unlikely event that any of the wood components in your New Idea Manure Spreader rot through, Avco New Idea will make replacement, no charge. Replacement will be made without cost to you, the original purchaser, at your nearby New Idea dealer . . . no charge for wood, no charge for labor or freight."

In addition, each carries New Idea's liberal full year Factory

Warranty on all other parts. So your new New Idea Spreader is *Double Warranted!*

14 Heavyweight Champions. In the market for a spreader? Your New Idea dealer has 14 rugged heavyweights for you to choose from — flail, cylinder/paddle, and single beater (optional upper cylinder available). 14 models—ground drive or PTO. 14 models—70 to 318 bushels. One is bound to be your type and size.

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Coldwater, Ohio 45828



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CANDOR
Ward & Van Scoy, Inc.
CATTARAUGUS
Denton Mather
CHITTENANGO
Chittenango Farm Supply
CINCINNATUS
McKee Equipment Co.

CLINTON

Clinton Tractor & Implement Co., Inc.
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Costello Farm Service
CLYMER
Carlton Damcott
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EAST PALMYRA
D'Meat Tractor, Inc.
EAST SPRINGFIELD
Homer Fassett
FILLMORE
Phillips Pontiac Sales, Inc.

FORT PLAIN

Snyder Petroleum, Inc.
GENOA
Barnhart & Franklin
GILBERTSVILLE
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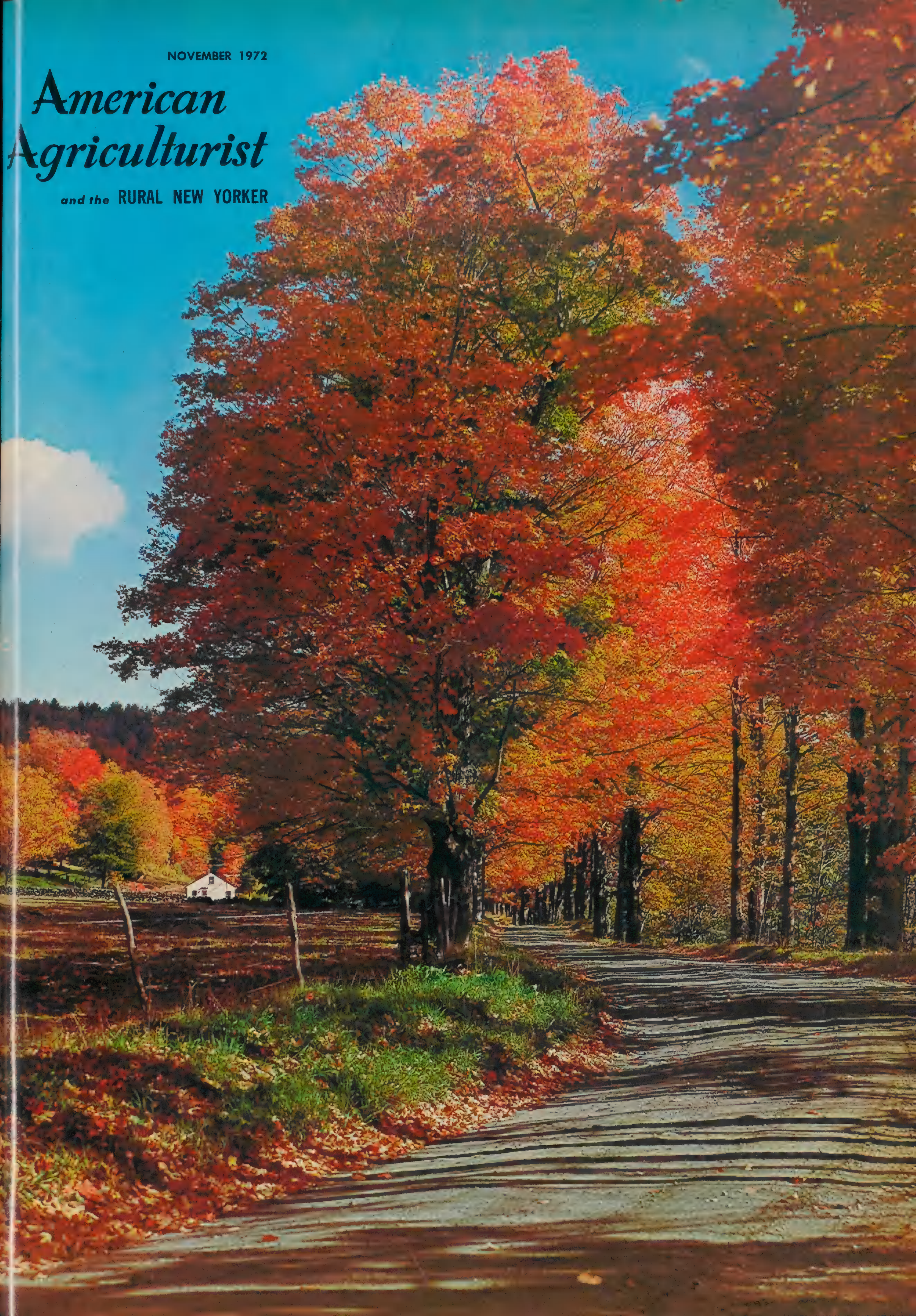
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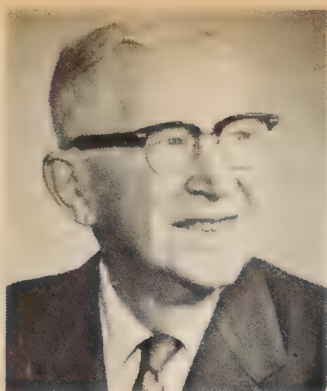
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NOVEMBER 1972

American Agriculturist

and the RURAL NEW YORKER





Farm labor

by Amos Kirby
New Jersey Editor

IN recent weeks, there has been considerable criticism of housing, working conditions and wages paid seasonal workers . . . most of it from welfare groups, social organizations, do-gooders and some of the city press.

I have spent more time . . . and money from my own pocket . . . studying the seasonal worker prob-

lem than any one single subject. I live in the center of the seasonal worker area in New Jersey. My trips have taken me into Florida, Texas, Arizona, California, Puerto Rico, Mexico and Hawaii.

New Jersey's seasonal workers come from nearby cities, and from Puerto Rico, Florida, Texas and California. With but very few excep-

tions, they are housed in Garden State quarters that are much superior to those "at home" where the workers claim their residence.

The wages paid by New Jersey growers meet state requirements, and are higher than the federal standards. Farmers in New Jersey and in nearby states who bring in workers from Puerto Rico pay them a guaranteed hourly wage of \$1.75, for 40 hours a week. This is a standard not equalled anywhere.

The critics mentioned visit the few farms where, due to various causes, the housing may be below standards established by the State Department of Labor. They talk with workers who may either be without experience, or who fail to make an

accurate report on what they are being paid.

News writers have been known to join the work force, spend a few hours in the field . . . and then write about the hard work and the "slave wages" they are paid. It takes experience to cut asparagus, or pick tomatoes. It took me nearly an hour to pick two pints of blueberries this past summer; an experienced picker would do it in less than 10 minutes.

This matter of seasonal workers wages being on a par with "slave labor" cannot be supported. When on piece work, some of the experienced workers receive more than \$100 per week. They also may receive free transportation home, plus a couple of days' wages covering the return trip.

If one goes into the winter-vegetable area of Culican, Mexico, where laborers receive \$2.90 total for a 10-hour day, one must agree that seasonal workers in New York are well paid by comparison!

Understanding

There is a complete lack of understanding on the part of the critics concerning the living habits of Puerto Ricans and Mexican-Americans.

Let's face it, men are poor housekeepers. That goes for most native Americans . . . and it also applies to young Puerto Ricans who are often away from home for the first time. During a visit to a Puerto Rican camp with a group of do-gooders, one lady found fault because there was no oven for baking. Male seasonal workers never bake . . . any more than I do!

One of the complaints of housing inspectors is that the occupants often remove the screens from windows, and never close the screen doors. In Puerto Rico, they don't worry about flies . . . a screen door is a nuisance.

This year I saw about 1,500 fewer contract workers from Puerto Rico. A part was due to a peach crop only 10 percent of normal . . . part because mechanical harvesters are becoming increasingly common for harvesting a variety of crops.

Trend

It is my prediction that the trend is toward more Mexican-Americans from Texas and the Southwest. They are more responsible, better workers, and they bring (in most instances) women as housekeepers.

Most growers prefer spending \$10,000 to \$25,000 for harvesting equipment, rather than the same amount for labor. At the end of the harvest, the \$10,000 in harvesting costs are gone, but the harvester will be here for a number of years. Loan officers would rather finance a harvester than a labor bill.

I can forgive the critics to some extent. They do not understand either the living habits of the workers, or the economic position of the grower.

Reminds me of an experience three years ago. Flying out of Puerto Rico one night, I was sitting beside a well-dressed man from the States. During our conversation, he told me that he was an executive for a Puerto Rican knitting mill. He was looking for a better-paying job because he could not live on the \$35,000 annual salary he was receiving.

After a moment's thought, I re-
(Continued on page 6)

T'NT Own winter with a new Silver Bullet T'NT* from Ski-Doo. This is the performance machine — modeled after our famous Blizzard* racer. New T'NT floats through powder other machines won't touch. Point it up a hill and it climbs, mister, it climbs! Put it on a track — and it's gone. You and your T'NT become one, a Silver Bullet streaking through a white winter world. Own winter. Buy it at your Ski-Doo dealer. Today.

The T'NT Story:

Model:	294	340	440
Cylinders:	2	2	2
Carburetor:	2 x HR	HD	HD
(Tillotson)			
Compression Ratio:	11.8:1	11.3:1	10.5:1
Gas/Concentrated			
Oil Ratio:	40:1	40:1	40:1
Brakes:	DISC	DISC	DISC

Suspension: 15 in. track with choice of one piece slide rails with centrally mounted shock absorber or bogie wheels.

All T'NT models have front shock absorbers, voltage regulator and carbide ski-runners.

T'NT 1973. Ride the Silver Bullet.



SKI-DOO*
the machine that changed winter
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*Trade Marks of Bombardier Limited

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OUR COVER

The beauty of fall is heightened by the knowledge that the sledgehammer blows of winter are soon to come. This little white house is near Hinesburg, Vermont. Photo: Esther Henderson.



Hesston holds the line on prices and still offers a "Better Deal" Now!

CASH BONUS

DIRECT FROM THE FACTORY ON A HESSTON WINDROWER

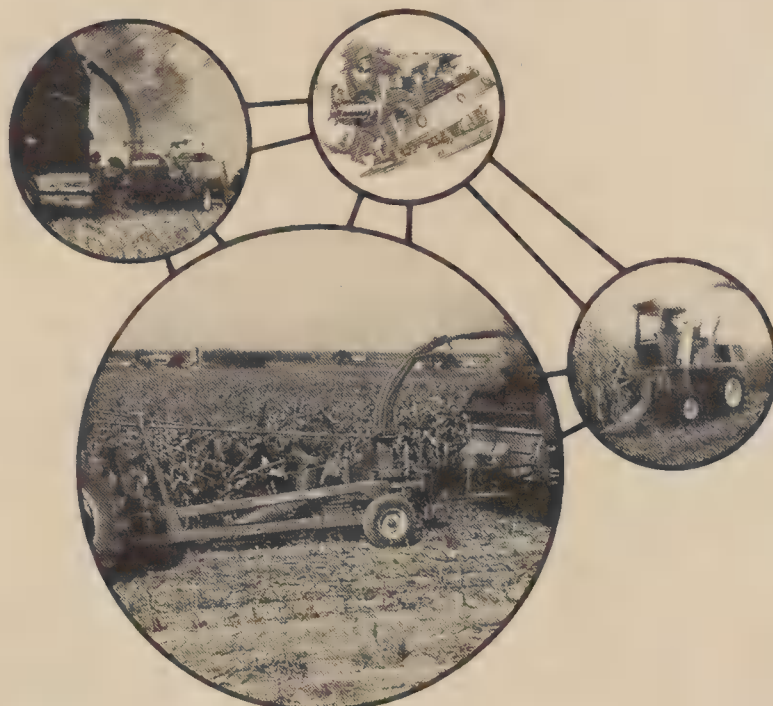
IF YOU BUY A MODEL	620	520	500	420	300	320	PT-12	PT-10	PT-7
BEFORE Dec. 31, 1972	\$325	\$275	\$250	\$250	\$200	\$175	\$100	\$100	\$100
Jan. 1-31, 1973	200	170	150	150	115	100	75	75	75
Feb. 1-28, 1973	125	110	100	100	75	60	50	50	50
Mar. 1-31, 1973	60	55	50	50	40	40	40	40	40

Bonus subject to model, option and other equipment availability.

HESSTON

Buy a new Hesston Windrower at '71 prices — and receive a cash bonus from the factory...or free interest!

Buy a new Hesston Forage Harvester at '71 Prices Interest-Free Until October 1, 1973!**



A clean cut choice with a "Heart of Steel" Hesston offers two high capacity pull-type forage harvesters: one for tractors with up to 100 hp drive trains and another for up to 200 hp drive trains. Plus a big 200 hp self-propelled. All are built around the famous "heart of steel" cylinder offering the highest ratio of capacity to horsepower. Interchangeable hay pick-up and corn heads available. Ask your Hesston Dealer for details on the Interest-Free Plan.

**Equipped for use in corn only. Interest free until May 1, 1973 on machines equipped for use in hay!

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OR, CHOOSE THE HESSTON "INTEREST-PAID" PLAN

If you buy a new Hesston Windrower now and finance it through a Hesston-designated finance company or your local bank, Hesston will pay the interest* until May 1, 1973. Choose either the "cash bonus" plan or "interest-paid" plan...whichever suits you best. You can have either...but not both. But whichever you choose, buy a Hesston...the windrower that "saves the leaves"!

*Based upon prevailing rate. Offer may be withdrawn at any time, but in any event will expire March 31, 1973.

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I harvest about _____ tons of hay a year.

HS-10C-972

EDITORIALS

by GORDON CONKLIN



CAN'T LET GO

Remember the hunter who easily found the bear, but then couldn't let go when old Bruin began to get rough?

A similar situation exists in Schoharie County, New York, where the State of New York "grabbed" the Bearkill Brook in the implementation of its watercourse regulations . . . and now would like to forget the whole thing. But Fred Murphy, owner of Prospect Enterprises . . . which in turn owns the big dairy farm through which the Bearkill flows . . . is determined to force the state to establish more concisely the parameters of its presumed authority to regulate watercourses officially labeled as "trout streams."

It all began one day in October, 1971, when enforcement officers of the New York State Department of Environmental Conservation (DEC) entered on Prospect land and told workers to stop immediately the removal of alders and brush along the stream. They stated, according to the formal legal complaint filed by Prospect Enterprises, that the State of New York owned the stream, its environs, and the woods adjoining the same . . . and that Prospect should fence the brook to prevent cattle from entering it.

For years, farmers have chafed under the regulatory authority of the state in connection with streams officially labeled as "trout streams" . . . having to get a permit for any disturbance of the streambed, or for most any other farm activity near them. Cutting brush along the streambed, for instance, is deemed to remove shade for the fish . . . which is one of the reasons the conservation people climbed all over Prospect Enterprises.

A representative of DEC informed Prospect employees that the state controls all land from the middle of the stream to 15 feet back from the stream banks. There is nothing in the conservation law that says this . . . it is merely regulatory interpretation of the statutes . . . and farmers find themselves wondering how public authority can take unto itself this kind of control without specific substantiating legislation. Even more, farmers wonder if this amounts to confiscation without compensation.

Up to now, though, farmers have pretty much gritted their teeth and not talked back to the state people. After all, it requires beaucoup money to talk back in the courts . . . legal fees could conceivably go to six figures if the Prospect case goes all the way to the Supreme Court, as Fred Murphy vows it will if need be. Of course, the attorneys for the state are paid with money from taxpayers . . . including Prospect Enterprises!

After DEC authorities ran the Prospect people off the land-improvement project, attorneys for Prospect Enterprises filed suit . . . and received court permission to sow haycrop seed on land along the Bearkill. In addition, State Supreme Court Judge Joseph Molinari issued a restraining order requiring DEC authorities to get the landowner's permission . . . or a court order . . . before again entering on Prospect lands. The state, sensing it had a Bearkill by the tail, filed suit to dismiss the complaint lodged by Prospect against DEC employees.

A hearing before another State Supreme Court judge, DeForest Pitt, resulted in a decision upholding Judge Molinari's decision. The state was by now especially eager to get off the hook, and obtained a hearing before a judge in Albany, closer to the seat of bureaucratic power. However, Judge Harold Hughes proceeded to

deny the state's motion to dismiss the case.

All the legal maneuverings may obscure the crucial issue . . . one that has vast importance to farmers. It is simply this . . . does the state have the constitutional authority to take away property rights by regulatory authority not specifically spelled out in legislation? For that matter, is it even constitutional to pass laws that limit private property rights in a fashion the DEC seeks to impose by Department regulation?

While not technically a class action on behalf of all farmers of New York State, this case (if successful) should establish a legal precedent on behalf of the integrity of the private ownership of farmland. Fortunately, Fred Murphy has both the will and the muscle to carry the legal action through to a conclusion.

He deserves the moral support of farmers and farm organizations of the Northeast. If you want to offer some moral support (or have a comment to make) contact him at Prospect Farms, Stamford, New York 12167 . . . or through AMERICAN AGRICULTURIST.

LAZY FARMER

Ever wonder who writes "The Song of the Lazy Farmer"? It's Merrill Gregory, whose address is 977 East Prairie Street, Naperville, Illinois 60540.

Merrill writes material that reads calm and quiet . . . but his full-time profession is a hectic one. Thus, he got himself a heart attack not long ago, but is recovering.

Now if he can just practice what "old Lazy" preaches, he'll live to write many another "Song."

PAY THE BILLS

The airwaves and publications have been filled of late with the hue and cry of political partisanship. Candidates for public office have been wooing special interest groups on every side by promises galore . . . more welfare money for the underprivileged, more food stamps for the unemployed, cabinet posts for some member of each ethnic group, and so on and on. Amidst all this, I found myself wondering as to who is concerned about the hard-working geese who actually produce all the golden eggs.

It's my privilege to visit farm families across the Northeast . . . all of whom are hard at work creating the goodies that make the food stamps redeemable in groceries . . . and who create the tax base whereby the public till is filled. As I talk with these folks, the thought often runs through my mind, "These are the salt of the earth. If the time ever comes when people like this give up and say the hell with it, then we can hang a 'Closed' sign on this troubled old world. If these folks ever quit being their solid, working, tax-paying, law-abiding selves . . . then the radicals at each end of the ideological spectrum will devour each other amidst much talk and no work."

The farmers' counterparts in non-farm jobs also work hard and long to create the goods and services that fill America's overflowing horn of plenty. Without the industry of these working people . . . farmer and non-farmer alike . . . social programs to help the unproductive would have nothing to distribute.

Amidst the development of compassionate programs to help more adequately those unfortunate people who cannot be productive, we must never lose sight of the attitudes of those who are productive.

A long time ago, France's free-spending king Louis XIV put it this way, "The art of taxation consists in so plucking the goose as to obtain the largest amount of feathers with the least possible amount of hissing." And, I might add, the prudent tax levier had better leave the goose with enough feathers to survive!

Fashions come and go . . . theories rise and fall . . . change overwhelms us . . . but an unchanging truth is that our society consumes what it produces. The productive people need encouragement to remain sufficiently productive to provide for themselves, and for the unproductive.

DAM BUILDERS

Over the years, farmers in the Northeast have tried to convince government authorities that the best way to approach flood control was to build many small dams on feeder streams . . . rather than giant structures that would inundate whole valleys. Somehow, the idea never sold very well . . . even in an era with unprecedented interest in ecological improvement. A strong environmental case can be made on behalf of lakes (50 to 200 acres) that have built-in capacity to store extra water in times of flood, and at the same time provide recreational sites.

Maybe the floods of 1972 will bring some reexamination of flood-control programs. I still think larger numbers of small dams offer more total long-run benefit than a few giant dams.

What's your opinion?

GUEST EDITORIAL

If killing anything meets your definition of being cruel, hunting is cruel. Many vociferous opponents of hunting and trapping take this attitude, and by speaking out against these activities, sincerely feel that they may be able to stop the suffering of wildlife. If this was the case, they would probably find me on their side.

Unfortunately, the line of thought does not carry as far as it should. Mother Nature has no place in her plan for nonviolent death; sooner or later every bird, beast, fish and all other living creatures will die with their boots on.

Year after year, Mother Nature produces so many more young than are needed to sustain a population that most never even survive to the next year. Only about 20 percent of pheasants last out the year, and with rabbits it is even fewer. The key reasons are predation, starvation, disease and weather.

Death in the wild is never without its pain, though it may be a merciful end to weeks of disease or hunger. It is the sincere desire of the sportsman to make his kill as quick and clean as possible; one probably more merciful than what would be in store if the quarry were permitted to die "a natural death." — Paul Kelsey, wildlife biologist with the NYS Department of Environmental Conservation.

THE PASSING PARADE

Publisher Jim Hall went fishing in Florida while on a trip . . . and he luckily caught a whopping tarpon. Back at the dock, he laid the big fish down beside another fisherman who had a string of little panfish. Expectantly, Jim waited for a comment.

The not-so-lucky fisherman eyed the giant tarpon for awhile, then took a deep draw on his pipe and said, "Caught just the one, I see."

American Agriculturist, November, 1972

Early, medium or full season, Pioneer has the best two for every New York farm.



The world's largest corn research program—Pioneer's—has developed the finest lineup of hybrids available for 1973. And, through testing under conditions like yours, pinpoints the varieties which have the greatest profit potential for your farm.

Remember, New York farmers cut corn acreage 1.5% this year. But they planted **over 12% more Pioneer brand seed corn**. What better vote of confidence could we ask?

So, don't settle for less than the best. Go with the leader. Go with Pioneer. Check the hybrids below. Then talk to your Pioneer salesman while choice varieties are still available.

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Early	3937	3X	4	4	3	4	4	Medium	Medium	18-22,000	NEW. Watch this one. Has a very high yield potential.
	3853	DX	4	3	3	2	3	Medium	M. Hard	16-20,000	An excellent double cross. Does best planted 16-20,000 p.p.a.
Med.	3784	SX	4	4	4	4	4	Medium	M. Hard	18-22,000	Early companion to 3773. Must harvest to appreciate.
	3773	SX	4	3	4	4	4	M. Tall	M. Hard	18-22,000	Most popular hybrid in its maturity.
Full	3571	MSX	4	4	4	3	4	Medium	M. Soft	19-23,000	Top yielding. Keeps standing till harvest.
	3518	MSX	4+	4	4	4	4	Medium	Medium	19-23,000	NEW. Yields big. Has excellent standability. Outstanding tolerance to Northern Leaf Blight.

*Suggested Populations are for final stands and would depend on fertility levels and soil type.

KEY: 1—Fair
2—Good
3—Very Good
4—Outstanding

TYPE ☒ CROSS:
SX—Single Cross
DX—Double Cross
3X—3-Way Cross
MSX—Modified Single Cross



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(Continued from page 2)

plied, "Friend, do you know that I would not know how to spend \$35,000 a year in living."

That practically ended our con-

versation, as I apparently did not understand his living problem!

MILK DECISION

Reluctantly, Garden State Farms has raised its milk prices to levels

ordered by the State Division of Dairy Industry. The action followed a Supreme Court decision upholding a price increase DDI sought to put into effect three years ago. Garden State Farms appealed the order and the price hike was suspended while lengthy hearings and court arguments took place.

Basic argument of Garden State is that it is being deprived of the opportunity to pass on to consumers the advantage of the lower cost of reusable glass containers. The dairy points out that it costs less to process and handle the returnable gallon jug, and since it makes trip after trip between store and consumer, container costs are practically eliminated. Without state controls to specify how much the dairy must

charge, consumers were in direct line to benefit from these savings.

Before the DDI-ordered increase, a returnable glass gallon jug of milk was selling for 96 cents at Garden State Farms stores. The new state-set price is \$1.04.

PESTICIDE SALE

Look for lengthy and heated discussion in the months ahead on what pesticides will be permitted in 1973, and who may purchase and apply them.

The New Jersey Department of Environmental Protection has an elaborate program on pesticides, involving what may be used and who will be permitted to apply them. A hearing is scheduled for November, and the future of many pest controls will be featured as this state agency plans to take supervision over what can be used.

The environmental agency wants to classify all pesticides into general and restricted use. Those on the general list may be purchased and used by anyone. Those on the restricted list can be purchased and used only by licensed applicators, which will include growers.

The Farm Bureau, the Grange, the College of Agriculture and the State Department of Agriculture will be speaking for growers in an attempt to have a law and regulations that will provide a sensible approach to pest controls.

FOIL FOR PEPPERS

Tests conducted at the South Jersey Research Center prove that pepper yields may be increased. Under the direction of county agricultural agent Norman Smith, yields have been doubled with the use of aluminum foil.

Pepper yields of 500 bushels per acre have been harvested in the first two harvests. The aluminum foil placed on top of the soil has resulted in more early fruit of high quality. The increased yield in the early harvesting season has far exceeded the cost of the foil.

The pepper may be one of the more promising crops for 1973. One contract buyer plans to offer five cents per pound for the 1973 crop, and has indicated that he will contract at least 2,000 acres at that price.

TOMATO HARVESTERS

Four developments in tomatoes represent breakthroughs in this important crop.

Tests at the South Jersey Research Center this year prove there are desirable new varieties especially adapted to machine harvesting.

The Porterway harvester, the newest machine on the market, has met with almost universal approval.

Tomato growers have delivered bulk loads of as much as 15 tons, resulting in savings to both the grower and processor. The new varieties have been an important factor.

The fourth new development is that the color meter, used in determining the quality of the grade, has resulted in improved grades on many loads delivered to the processors.

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(Left to right:) Robert and Bill Titus. Agway free-stall barn in background was built in two sections and Agway silos added one at a time to meet their needs for expansion.

“\$98 additional profit per cow, per year. That’s what Agway Dairy Enterprise Service means to us!”

Robert and Bill Titus, father-and-son partnership, farm 140 acres near Windsor, N. Y. They crop about 90 acres, with another 50 in improved pasture. Their herd averages 126 cows, with 62 milking. It wasn’t always that way. As Robert Titus puts it:

“When Bill came into the operation, it was obvious that we had to begin making more milk from the same number of acres. One of our first moves was to switch to free-stall barns and a milking parlor. Agway helped us all along the way . . . with designs and building. And they helped us get credit for our first free-stall barn.”

“What the new barns and parlor really meant,” adds Bill, “is that we could double the size of our herd without doubling the labor.”

“Sounds simple,” says Robert, “but another big move was to put our cows on Agway Liquid Protein Supplement, fed free choice. When we saw how much LPS they were consuming, we started talking to Enterprise Salesman Tom Redmond about our whole feeding program. And that’s how we got onto the

Tom Redmond, Agway Dairy Enterprise Salesman, works closely with the Tituses on every phase of their expansion program.



Agway Total Dairy Ration Profile.

“After a few months, things really started happening. First thing we noticed was that our fresh cows were peaking earlier . . . and higher.”

“And they’ve been sustaining longer,” continues Bill. “As of now, we’re getting an extra \$98 per cow per year, income over feed costs—and this is clear profit.”

Agway Dairy Enterprise Service is the blending of a farmer’s resources with Agway resources in the best combination to increase profit for the farmer who wants to get the most from his management effort.

Why not find out what it can all mean to you? Call Agway today.

Farm Enterprise Service

AGWAY



\$65 Additional Net Income per Year per Cow?

Recent Agway research with 338 cows showed that following a program based on a **Total Dairy Ration (TDR) Profile** increased milk production 500 pounds per cow, per year.

At the same time, it decreased feed costs and raised net income by \$65 per cow, per year.

Here's why TDR could help your herd do as well as the test cows mentioned above.

The Agway TDR Profile is a computer program that picks the right combination of forage, grain and Agway feeds to satisfy your cows' nutrient requirements for maintenance and to build towards top milk production. TDR considers the total protein, energy, calcium/phosphorus ratio and fiber needs of your cows, plus the forage-to-grain ratio. Then it shows you how to achieve top income over feed costs.

Right now is an opportune time to look into TDR. Most of your cows have probably already freshened, or are due to freshen soon. Milk production will be climbing. And with the right feed program, it can climb even higher. What's more, forage quality has varied widely this year. So it's a good idea to evaluate your feed program thoroughly and then take steps to correct any inefficiencies.

One of the most important elements in a Total Dairy Ration program is Ratio:Right feeds...a line of feeds in which the *ratio* of energy to protein has been carefully selected to balance the feedstuffs produced on Northeastern farms. It's ideally used with TDR as a base. But Ratio:Right feeds will fit into any feed program on any farm.

Ratio:Right...a new Agway Enterprise advance in dairy feeding.

With Ratio:Right feeding, your herd gets *only* the protein and energy needed to balance your forage/grain program and to maintain top production. You don't have to overfeed protein to meet energy requirements. Or overfeed energy to meet protein requirements.

Your Agway Dairy Enterprise Salesman will help you choose the proper Ratio:Right feed for your herd. Using the Agway forage-testing service and an analysis of your herd's energy and protein needs, he will determine the nutritive ratio requirements of your herd and select the Ratio:Right feed that matches those needs.

Why waste feed dollars?

Ratio:Right feeding offers the assurance of meeting both energy and protein requirements with no wasteful overages or dangerous shortages. Ratio:Right feeds are available with energy/protein ratios ranging from 0.7 to 7.3. There's one that will closely fit any forage/grain program in the Northeast—including yours.

But the protein content of forage can vary widely from field to field—even from bale to bale. The date of cutting can also make a substantial difference. So in any year, Agway Liquid Protein Supplement (LPS), fed free choice, bridges any gap between the amount of protein needed to sustain high milk production and the amount contributed by your homegrown forage. In an over-

all poor-forage year, of course, LPS should be considered a must.

LPS can make money for you this year.

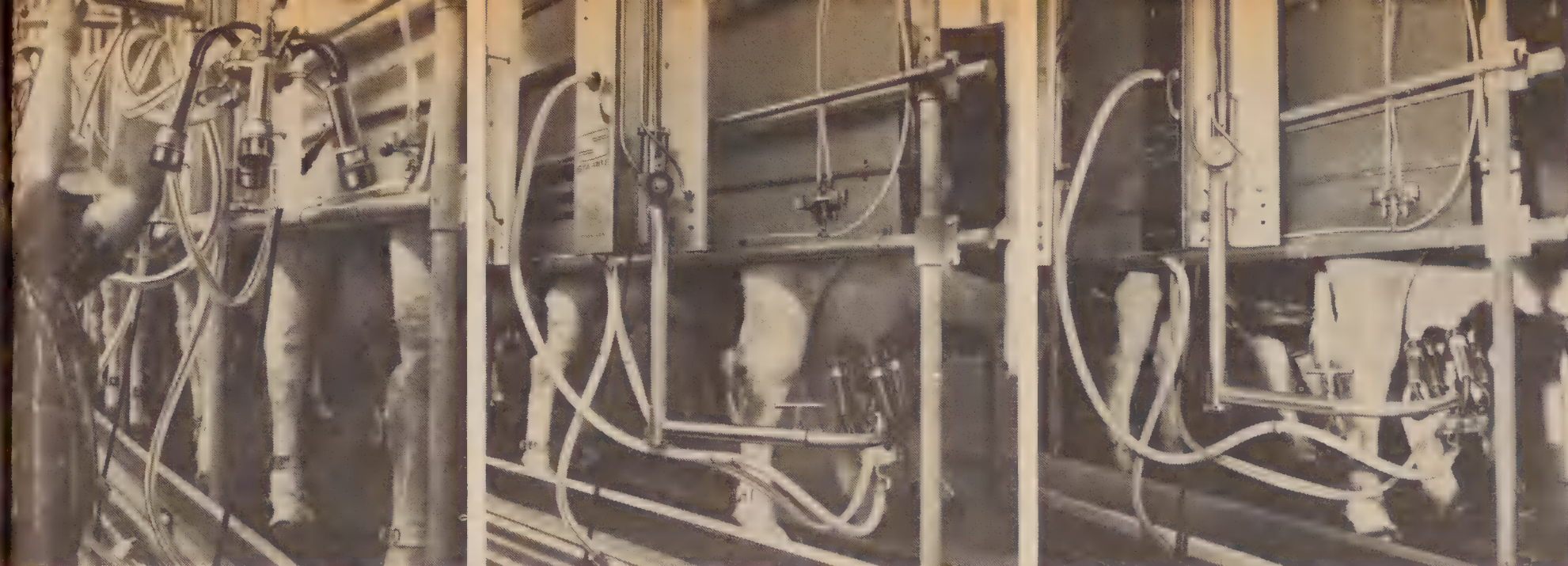
LPS is an economical way to supply protein. It reduces your cash outlay for feed, because it provides protein at low cost. So you're buying only what you cannot grow in sufficient quantity on your own farm.

In addition to protein, LPS also supplies phosphorus, vitamins and trace minerals essential to health, condition and top milk production during the winter months.

With a wheel feeder, your cows can make up protein deficiencies in their roughage or grain ration by free-choice feeding. And evidence indicates that cows will increase LPS consumption when available protein is low, and decrease LPS consumption when protein is adequate.

Top-dressing LPS on low- or medium-quality hay not only increases the nutritive value, but also makes the hay more palatable to encourage greater consumption.





After the milker is on, the control senses milk flow. When flow stops, teat cups drop off...



arm automatically retracts and raises up out of operator's way.

High-producing cows deserve protection from the stresses of overmilking. The new Sta-Rite Automatic Milker Control gives it to them.

No one knows better than you the problems that overmilking can lead to, and how close is the relationship between this severe stress and infection within the udder.

The new Sta-Rite Automatic Milker Control, available from Agway, senses the milk flow from the udder and controls the vacuum to the teats. Once the milk flow stops, the vacuum automatically shuts off, protecting the udder from overmilking. The reflex arm then

removes the milker unit from the udder and retracts it to a position out of the operator's way. As a result, the Sta-Rite Automatic Milker Control lets one man milk more cows per hour and give more attention to each cow. There's more time for better cow preparation, checking udders, and teat sanitizing.

The Sta-Rite system is easy to install in milking parlors. Easy to clean in place. Fits into low-line, mid-line or high-line systems.

The Sta-Rite Automatic Milker Control is one way Agway can help you in your milking-parlor operation.

You can depend on Agway for everything from initial design and building to milking and piping systems, automatic cleaning and sanitizing systems to the bulk tank itself. All backed by Agway. And Agway can help you set it all up a bit at a time, with an eye toward future expansion or increased mechanization.

Fertilizer storage discounts have just been increased. Can you afford not to save up to \$6.00 or more a ton?

Agway fertilizer plants simply don't have enough room to store all the fertilizer that will be needed in your area next spring. So Agway will pay you to store what you'll be needing on your own farm. If you order on or before November 11 for immediate delivery, you save

12¢ per unit. A 6-24-24 fertilizer, for example, adds up to 54 units of plant food, or a saving of over \$6.00 per ton. Discounts apply to bagged and bulk ammoniated grades and to blends spread on the land. And you don't have to pay for it until April 2, 1973.

In addition, the fertilizer you store on your farm from October 30 through June 30 will be replaced if loss is due to fire or from water used in fighting fire. As another bonus, you're sure of having the fertilizer you need on hand when you need it.

For the maximum discount, figure your requirements and place your order now. Your Agway Enterprise Salesman will be happy to help you plan for your 1973 crop needs.

It's not too soon to start looking at some promising new hybrids for '73.

Agway is continually testing and evaluating new corn hybrids. Sometimes it takes years of trial plantings on Agway plots, on farms, and at leading colleges before a particular hybrid is recommended.

For '73, Agway has several new hybrids that have shown exceptional merit. You'll probably want to test one or two in your own fields next year. Ask your Agway Dairy Enterprise Salesman for the new descriptive folders telling all about them. Then let him help you select the ones that will challenge the best you've ever grown.

1972-73 STORAGE DISCOUNTS

Period	Per unit discount N-P-K ammoniated grades.	Per lb., blends spread on the land.
October 30- November 11	12¢	.6¢
November 13- December 16	10¢	.5¢
December 18- January 20	8¢	.4¢
January 22- February 24	6¢	.3¢

1972 will be remembered as the year of the Agnes floods, the late spring and poor growing season. But you can also remember it as the year you took full advantage of your cooperative's resources to make your dairy enterprise more profitable and satisfying.

AGWAY

TREAD LIGHTLY



Exceptional lightweight plus a tough longwearing tread that's why so many farmers insist on Tingley. So light you can forget you have them on, so tough and long wearing you can walk in comfort in all kinds of snow, mud, slop and broken terrains. Three styles for men and a Muk-Luk boot style for women.

Try on a pair at your nearest Tingley dealer's. And tread lightly all winter.

TINGLEY

TINGLEY RUBBER CORPORATION, 272 SOUTH AVE., 5 PLAINFIELD, N.J. 07051

NEW YORK

ADAMS Agway Coop. Inc.
ADAMS Bellhoff Dept. Store
ADDISON Addison Agway
AFTON Stone's Dept. Store
ALBANY South Penn Army & Navy
ALBION Albion Agway
ASHVILLE Ashville Agway
AUBURN Auburn Agway
AUBURN The Liberty Store
BAINBRIDGE C. H. Eldred & Co. Inc.
BALDWINVILLE Glass Family Shoe Store
BALLSTON SPA Ballston Agway, Coop., Inc.
BATAVIA Batavia Agway
BATH Harold's Army & Navy
BATH M. J. Ward & Son
BINGHAMTON Dick's Sporting Goods
BINGHAMTON Hank's Men's Shop
BINGHAMTON Norman Uniform Co.
BROGHAMPTON Bridgehampton Agway
CAMDEN Camden Agway Coop.
CAMILLUS Nolan's Shoe Store
CANANDAIGUA Charles Outhouse Feed & Coal
CANANDAIGUA Joe Valvano Dry Sup.
CANDOR Ward & Vanscoy Inc.
CANISTEO Canistota Agway
CANTON Northern N.Y. Bulk Milk Producers
CARMEL Markoff Shoes
CENTRAL ISIP Central Islip Agway
CENTRAL SQUARE Shaw Shoe Store
CHATHAM Brown Shoe Co.
CHATEAUGAY Chateaugay Coop. Marketing Assn.
CLINTON Sauquoit-Clinton Agway
COBLESKILL Greene Shoe Store
COBLESKILL Schoharie Co. Coop.
COBLESKILL Wohl Dept. Store
COHOES Cramer's
COPIAGUE Copiague A & N
CORNING Harold's Army & Navy
DANSVILLE Perry Shoe Service
DELHI Delhi Bootery
DEPOSIT Sunny's Shoe Store
DUNDEE Dundee Agway
EAST AURORA Robert S. Moore
EAST CONCORD Shamel Milling Co.
EAST SYRACUSE Sack's Dept. Store
ELLENVILLE Eddie's Country Fair
ELMIRA Harold's Army & Navy
EVANS MILLS Evans Mills Agway Coop.
FAIRMOUNT Rutledge Shoe Store
FAIRPORT Fairport Agway
FONDA Fonda Agway Coop.
PORT EDWARD Adirondack Farmers Coop. Exchange
FORT PLAIN Fair's Shoe Store
FREDONIA Shearer's
FULTON Fulton Agway Coop., Inc.
GASPORT Lockport Agway
GENEVA Duro Shoe Store
GENEVA Geneva Agway
GENEVA Hessway Shoe Store
GENEVA E. E. Miller & Son

GENEVA Gouverneur
GOVERNOR Gouverneur Coop. Assn., Inc.
GRANVILLE Sol Kaplan's Inc.
GREENWICH Granville Agway
HAMILTON Pratt's Clothing
HANGCOCK Mayfield Shoe Store
HEMLOCK McGonaghan Co.
HERKIMER Hemlock Agway
HILTON Agway Coop.
HOBART Hilton Agway
HOLCOMB J & B Clothing
HOLLAND-PATENT Holcomb Agway
HOLMESVILLE Holland-Patent Agway
HOMER Herbert W. Reed
HOPWELL JUNCTION Homer Men's & Boys' Store
HORNEILL Lilje Villagers Shoes
HORSEHEADS LePiana Shoe Store
ITHACA Marshall's Feed Mill
ITHACA Harold's A & N Store
JAMESTOWN Ithaca Agway
JAMESTOWN Arcade Shoes
JAMESTOWN C. L. Camahan Corp.
JASPER Roselle Shoes
JOHNSTOWN Payre's General Store
KNOWLESVILLE Johnstown Agway
LITTLE VALLEY Knowlesville Agway
LIVINGSTON MANOR Linwood Agway
LOCKPORT Gramco, Inc.
LYONS Siegel's Dept. Store
LYONS Perry Shoe
LYONS Paliotti Shoe Store
MACEDON Smart's Agway Serv.
MALONE Townsend Grocery
MEDINA National Army Stores
MEDINA Baughn's Shoe Store
MIDDLETOWN Family Shoe
MILLERTON Roberts Shoes
MILLERTON Agway, Inc.
MILLERTON John Clark (I.B.A. Agent)
MONTAIGNE Bernard Jacob
MONTAIGNE Saperstein's
MONTAIGNE Guild Bros.
MONTAIGNE Jennings' Dept. Store
MONTAIGNE Chamber's A & N
MONTAIGNE L. L. Richer Co., Inc.
MONTAIGNE Devitt's Agway
MONTAIGNE Jack's A & N
MONTAIGNE Nichols Agway Coop.
MONTAIGNE Higbie Farm Supply
MONTAIGNE Pearl Shoe Store
MONTAIGNE Agway Supply Center
MONTAIGNE Nunda Farm Service
MONTAIGNE Olean Lester Shoes
MONTAIGNE Oneida Agway Inc.
MONTAIGNE Hermann's Agway
MONTAIGNE L. Noto
MONTAIGNE Modern Shoe Service
MONTAIGNE Oswego Agway
MONTAIGNE J. J. Hollenbeck & Son
MONTAIGNE Oswego Agway
MONTAIGNE Palmyra Agway Coop., Inc.
MONTAIGNE Penn Yan Agway
MONTAIGNE Smith Shoe Stores

Super Army & Navy Store
Gouverneur Coop. Assn., Inc.
Sol Kaplan's Inc.
Granville Agway
Pratt's Clothing
Mayfield Shoe Store
McGonaghan Co.
Hemlock Agway
Agway Coop.
Hilton Agway
J & B Clothing
Holcomb Agway
Holland-Patent Agway
Herbert W. Reed
Homer Men's & Boys' Store
Lilje Villagers Shoes
LePiana Shoe Store
Marshall's Feed Mill
Harold's A & N Store
Ithaca Agway
Arcade Shoes
C. L. Camahan Corp.
Roselle Shoes
Payre's General Store
Johnstown Agway
Knowlesville Agway
Linwood Agway
Gramco, Inc.
Siegel's Dept. Store
Perry Shoe
Paliotti Shoe Store
Smart's Agway Serv.
Townsend Grocery
National Army Stores
Baughn's Shoe Store
Family Shoe
Roberts Shoes
Agway, Inc.
John Clark (I.B.A. Agent)
Bernard Jacob
Saperstein's
Guild Bros.
Jennings' Dept. Store
Chamber's A & N
L. L. Richer Co., Inc.
Devitt's Agway
Jack's A & N
Nichols Agway Coop.
Higbie Farm Supply
Pearl Shoe Store
Agway Supply Center
Nunda Farm Service
Olean Lester Shoes
Oneida Agway Inc.
Hermann's Agway
L. Noto
Modern Shoe Service
Oswego Agway
J. J. Hollenbeck & Son
Oswego Agway
Palmyra Agway Coop., Inc.
Penn Yan Agway
Smith Shoe Stores

PIKE Poland Agway Inc.
POLAND Graf's Mill
PORT BYRON Levine's A & N
PORT CHESTER Albany Agway
RENSSELAER Boniana
RIVERHEAD Riverhead Agway, Inc.
RIVERHEAD Saxstein's A & N
ROME Phillipson Army & Navy
SALAMANCA Masam's Shoes
SANBORN Sanborn Milling Co.
SCARSDALE Murray's A & N
SCHAGHTICOKE Hoosac Valley Farmers Exchange
SCHENECTADY Bi-Mar Gov't Surplus
SCHENEVUS Milton Brandow
SCIPPO CENTER Knueger Feed & Supply
SENECA FALLS Cao & Rutz Shoes
SHERBURNE Sherburne Agway
SHERMAN Jack's Saddle Shop
SKANEATELES Dwyer Farm Supply
SKANEATELES Roland's Men & Boys Store
SINCLAIRVILLE Peterson's Agway Serv.
SOUTH DAYTON Austin Milling Co.
SOUTHAMPTON La Camupda
SOUTHAMPTON Southamptn Outdoor Store
STAFFORD Cowards Feed Store
STILLWATER Carcun & Cowin Agway
SYRACUSE M. E. Dairy Coop. Feed
TROY Jim's Shoe Repair
TROY Pressman's Inc.
UTICA Centolella Bros.
UTICA Seneca Boot
VERNON Vernon Army & Navy
VERNON CENTER Vernon Milling Co., Inc.
WALTON Tony's Shoe Store
WALTON Walton Agway Farm Store
WARWICK Howard Quackenbush & Son
WATERTOWN Agway Farm Store
WATERTOWN Max Alpert, Inc.
WATERTOWN Walter H. Bisnett, Inc.
WATERTOWN Ludden Shoe Store
WELLVILLE Wellsville Agway
WELLVILLE Economy Uniform
WESTBURY Whitehall Branch Agway
WHITNEY POINT Ken's Clothing
WILLIAMSON Williamson Fruit & Veg. Coop. Assn.
WOLCOTT Edwards Shoe Store
WYOMING R & S Agricultural Supply

Pike Hardware
Poland Agway Inc.
Graf's Mill
Levine's A & N
Albany Agway
Boniana
Riverhead Agway, Inc.
Saxstein's A & N
Phillipson Army & Navy
Masam's Shoes
Sanborn Milling Co.
Murray's A & N
Hoosac Valley Farmers Exchange
Bi-Mar Gov't Surplus
Milton Brandow
Knueger Feed & Supply
Cao & Rutz Shoes
Sherburne Agway
Jack's Saddle Shop
Dwyer Farm Supply
Roland's Men & Boys Store
Peterson's Agway Serv.
Austin Milling Co.
La Camupda
Southamptn Outdoor Store
Cowards Feed Store
Carcun & Cowin Agway
M. E. Dairy Coop. Feed
Jim's Shoe Repair
Pressman's Inc.
Centolella Bros.
Seneca Boot
Vernon Army & Navy
Vernon Milling Co., Inc.
Tony's Shoe Store
Walton Agway Farm Store
Howard Quackenbush & Son
Agway Farm Store
Max Alpert, Inc.
Walter H. Bisnett, Inc.
Ludden Shoe Store
Wellsville Agway
Economy Uniform
Whitehall Branch Agway
Ken's Clothing
Williamson Fruit & Veg. Coop. Assn.
Edwards Shoe Store
R & S Agricultural Supply

FITCHBURG United Coop. Farmers, Inc.
GARDNER Bow Shoe Store
GARDNER Student Bros.
GREENFIELD Farm Bureau Assn.
GREENFIELD Greenfield Farmers Coop. Exch.
HARDWICK Hardwick Farmers Co-op. Exch.
HAVERHILL Benedetti's Shoe Store
HAVERHILL Ben Corl
HAVERHILL John's Shoe Store
HINGHAM Hitchcock Shoes, Inc.
HOLYOKE N. Ball Shoe Store
HUDSON Don's Shoe Store
LAWRENCE Daniel's, Inc.
LAWRENCE Jackson Shoe Store
LAWRENCE Reinhold's Shoe Store
LEE H. K. Webster
LEE Ben's
LEEDMINSTER Jack's Dept. Store
LEEDMINSTER Armolatti's Shoe Sales & Serv.
LEEDMINSTER Fine's Shoes & Service
LEEDMINSTER Jack's Seabrook
LEEDMINSTER Jack's, 16-18 Monument Square
LOWELL 20th Century Shoe Store
LOWELL Ben Marche
LOWELL Farm Bureau Assn.
LYNN Merrimack Shoe Store
LYNN Muenksy's Inc.
LYNN Simons Uniforms
LYNN Jobbers Outlet
LYNN Maynard Outdoor Store
LYNN Daher's Shoe Store
LYNN Gob Shop
LYNN Natick Outdoor Store
LYNN Wells Shoes
LYNN Agway Inc.
LYNN Agway, Inc.
LYNN I. Fine Inc.
LYNN Ted's Boot Shop, Inc.
LYNN Walk Rite Shoe Store
LYNN Agway, Inc.
LYNN Pen One Shoes
LYNN Potter Shoes
LYNN Jim's House of Shoes
LYNN Mr. Nathan's
LYNN Pittsfield Shoe Box Inc.
LYNN Eugene's
LYNN Gobb Shop
LYNN C & S Outlet Inc.
LYNN Farm Bureau Assn.
LYNN Scott's Surplus
LYNN Watertown Shoe Store
LYNN Agway, Inc.
LYNN L. G. Mehta, Sr.
LYNN Agway Inc.
LYNN Berger Uniform Co.
LYNN Joseph F. Carbonneau, Jr.
LYNN Libson's Shoes
LYNN Mechanics Rubber Co.
LYNN Al Vuono's Men's Shop

CONNECTICUT

BLOOMFIELD Bloomfield Farmers Exch.
BRIDGEPORT Fairfield Clothing Co.
BRIDGEPORT Liberty A & N Store
BRISTOL Irving's A & N
BRISTOL Mine's Shoes
BUCKLAND Agway, Inc.
CANAAN Bob's Clothing
CANAAN Roger's Shoe Store
COLCHESTER Elnhorn Grain Store
DANBURY Bargain World
DANBURY Markoff's
DANIELSON United Coop. Farmers, Inc.
DANIELSON Keesh Dept. Store
EAST HARTFORD Industrial Uniform Co., Inc.
EAST HARTFORD Seapark's Dept. Store
ELLINGTON Ellington-Vernon Farmers Exch.
ENFIELD Vincent's Apparel
GLASTONBURY A. Karim's Dept. Store
GREENWICH B & G Army & Navy Store
MIDDLETOWN J. Pollster & Sons
MIDDLETOWN Bob's Surplus
NEW LONDON Schabian's
NEW MILFORD Agway, Inc.
NEW MILFORD Green Barn Shoes
NEW MILFORD Markoff Shoes
NORTH FRANKLIN Kahn Tractor & Equip. Inc.
NORWALK B & G Army & Navy
ORANGE Big & Tall Men's Apparel
PLAINFIELD Agway, Inc.
PLAINVILLE Mundy's Shoe Store
PUTNAM Agway, Inc.
PUTNAM Putnam Farmers Coop. Assn.
SIMSBURY Valley Home & Garden Center
SOUTHINGTON Baker Shoes
STAMFORD B & G Sales
TAFTVILLE Town & Country Shop, Center
THOMASTON B & G Sales, 247 Main St.
TORRINGTON Eldredge Hardware Co., Inc.
WATERBURY Ray's Army & Navy Stores
WATERBURY Agway, Inc.
WATERBURY Joel's Shoe Box
WATERBURY Joel's Bootery
WETHERSFIELD Shoe Centre
WILLMANTIC Ben Eagle
WILLMANTIC Surplus Center
WANTIC Agway Inc.

NEW HAMPSHIRE

BOW Merrimack Farmers' Exchange
CLAREMONT Agway, Inc.
CLAREMONT Merrimack Farmers' Exchange
CONCORD Agway, Inc.
CONCORD Mickey Finn
CONCORD Merrimack Farmers' Exchange
DERRY Merrimack Farmers' Exchange
DOVER Agway, Inc.
KEENE Merrimack Farmers' Exchange
LACONIA Merrimack Farmers' Exchange
LAKEPORT Kasper's Shoes
LANCASTER Merrimack Farmers' Exchange
LEBANON Hirsch's
MANCHESTER Merrimack Farmers' Exchange
MILFORD Agway, Inc.
MILFORD Boston Shoe Store
NASHUA Almy's Shoe Dept.
NASHUA Little Shoe Store
ROCHESTER Merrimack Farmers' Exchange
WALPOLE R. N. Johnson, Inc.

RHODE ISLAND

CUMBERLAND LaBrie Shoe Stores
EAST GREENWICH Silverman Shoe Store
MIDDLETOWN Arnold & Lila
NORTH PROVIDENCE Shoe Horn
PASCOG Berk's
PAWTUCKET Saltzman's Inc.
WARWICK Health Footwear
WARWICK Jack's
WEST KINGSTON Agway, Inc.
WESTERLY Agway, Inc.

VERMONT

ALBANY Albion Isle Lemotte Farmers Coop.
BARRE The R. L. Clark Store, Inc.
BRANDON David Shapiro Dept. Store
BRATTLEBORO Agway, Inc.
BRATTLEBORO Sam's Dept. Store
BRIDPORT Broughton's IBA
BRIDPORT Daniel Huestis Farm Supplies
CHESTER DEPOT R. B. Erskine Feed Store
ESSEX JUNCTION Philip M. Cohen
ESSEX JUNCTION Essex Junction Agway
FAIR HAVEN Sheldon Bros. Agway
GRAND ISLE St. Albans Coop. Creamery
HARDWICK Hill's Feed Store
HIGHGATE CENTER O. C. McCuin & Son
MIDDLEBURY Agway, Inc.
MILTON Milton Co-op Dairy Corp.
MORRISVILLE Lamoille Grain Co.
MORRISVILLE Yankee Milk Inc.
NEWPORT Tungeon Refrigeration Service
RANDOLPH Central Supply, Inc.
RANDOLPH White River Valley Dairies, Inc.
RUTLAND Agway, Inc.
RUTLAND Wilson Clo. Co.
SAINT ALBANS St. Albans Coop. Creamery
SAINT JOHNSBURY E. T. & H.K. Ide, Inc.
SAINT JOHNSBURY Captain's Army Store
UNDERHILL Wayne King
VERGENNES Fishman's Dept. Store
VERGENNES H. P. Hood & Sons Farm Store
WEST RUTLAND Richard B. Chapman, I.B.A.

MAINE

Agway, Inc.
Boghosian Shoe Outlet
H. K. Webster Stores of Maine
Schiro's Bangor Shoe Store
Picard's Feed & Supply
Agway, Inc.
Epstein's
Hodgman Footwear
Manor's Pet Shop
Agway, Inc.
Joseph Clothing Store
Coles Shoe Shop
Kittery Trading Post
Carney's Dept. Store
Star Shoe Store
A & R Specialty Co.
Maine Potato Growers, Inc.
Hodgman Shoe Store
Murray Shoe Store
Stevens Feed & Hardware
Bergeron Shoe Store
Agway, Inc.
J. E. McCormick & Son
Agway, Inc.
Winterport Agway
M. L. Barbour & Son

MASSACHUSETTS

AMESBURY Ben's Men's Shop
ANDOVER Reinhold's of Andover
ATHOL S & N Sales Co.
ATTLEBORO Gob Shop
AUBURN Jack's Shoes
AUBURN Philip Luffy Walk Rite Shoes
AUBURN Aubrey Pulling
BOSTON Mickey Finn
BOSTON Sam's Outlet
BROCKTON Brockton Uniform Co.
CAMBRIDGE Shoe Outlet, Inc.
DEDHAM Jack's
DORCHESTER Manne Clothing Co.
EAST BROOKFIELD Brookfield Factory Outlet
FITCHBURG Army & Navy Store
FITCHBURG M. Gendron Co., Inc.
FITCHBURG W. C. Goodwin
FITCHBURG Student Bros.

NEW JERSEY

BELVIDERE Yock's Shoe Store
COLUMBUS Jack Van Akon
ELMER Agway, Inc.
ELMER Schallack Mills
FLEMINGTON Hunterdon Agway
FREEHOLD Dill & Reynolds
HAMMONTON Richie's A&N Store
MOUNT HOLLY Jax Army & Navy Store
PRINCETON Rosedale Mills
SOMERVILLE Davids-Hillsboro
VINEYARD Bernie's A & N
WEST COLLINGSWOOD Ruby Shoes
WHITEHOUSE STATION David's-Whitehouse
WHITEHOUSE STATION Garden State Hatchery
WILLINGBORO Oakland Shoes
WOODSTOWN Agway-Woodstown
WOODSTOWN Woodstown Ice & Coal
YARDVILLE Harry's A & N Store



Sun Scald — The bark splitting that occurs on trunks and branches of deciduous stone fruit trees as a result of winter sun scald can be minimized by painting the trunks with white exterior latex paint.

Sun scald injury usually appears after cold, calm, sunny days. High temperatures in cambium layers exposed to the sun induce cell activity during the day, and make cells susceptible to injury with the sudden drop to low temperature after sunset.

Sun scald itself does not kill the tree, but subsequent infection of damaged tissue can lead to its death.

Bad Bee — An exceptionally aggressive strain of Brazilian honeybee is spreading northward, and could eventually enter southern United States and become a major problem to the beekeeping industry, as well as a serious public nuisance.

According to a USDA-sponsored study, the Brazilian bee not only readily attacks intruders, but occasionally takes over the hives of other bees. It also leaves managed hives and migrates long distances to establish nests in sites of its own choosing. In areas where it has appeared, it forages so aggressively that strains formerly kept by commercial beekeepers can't compete and have disappeared.

The strain is not likely to extend its range to the northern U.S. How-

ever, it could have a major impact on beekeeping in the north, because beekeepers there purchase bees reared in southern areas to establish new colonies every year.

Swinger — With a new type of hedgecutter called "Swingover," developed by Howard Rotavator, every run along a ditch or hedge-row can be a working run. The operator can cut either the left or right hand side by simply swinging the arm of the cutter in an arc from one side to the other. All cutting adjustments are made from the driver's seat.

Swingover will easily attach to any 3-point linkage tractor, and can be equipped with two reciprocating knife-type cutters, one for brush and other heavy materials, the other for grass.

For complete details, write to: Howard Rotavator Company, Department S, Harvard, Illinois 60033.

The swingin' Swingover.



Dates to Remember

Nov. 1-2 - Annual Meeting Vermont Farm Bureau, City Auditorium, Barre, Vt.

Nov. 3 - Feeder Calf Sale, Caledonia, N.Y.

Nov. 4 - Feeder Calf Sale, Pike, N.Y.

Nov. 4 - Vermont Feeder and Club Calf Sale, sponsored by Vermont Beef Producers Association, Arnold Bay Farms, Inc., Pantown, Vt.

Nov. 5-9 - 57th Annual Meeting National Association of County Agricultural Agents, Marriott Motor Hotel, Atlanta, Ga.

Nov. 11 - Livestock Field Day, Cornell University, Ithaca, N.Y.

Nov. 11 - Royal Agricultural Winter Fair, Royal Coliseum, Exhibition Park, Toronto, Ontario, Can.

Nov. 13 - 34th Annual NYS Pesticide Conference, Alice Statler Auditorium, Cornell University, Ithaca, N.Y. Pre-registration (\$15 fee) requested with Department of Entomology, Comstock Hall, Cornell University, Ithaca, N.Y.

Nov. 13-14 - Annual Meeting Massachusetts Farm Bureau Federation, Colonial Hilton Inn, Pittsfield, Mass.

Nov. 13-15 - Annual Meeting New York Farm Bureau, Hotel Syracuse, Syracuse, N.Y.

Nov. 13-21 - 106th Annual Session National Grange, Hartford Hilton, Hartford, Conn.

Nov. 14 - Annual Meeting New Hampshire Farm Bureau, Highway Hotel, Concord, N.H.

Nov. 14-15 - Inter-State Milk Producers Cooperative Annual Meeting, Marriott Motor Hotel, Philadelphia, Pa.

Nov. 15-17 - Annual Meeting Maine Farm Bureau, Oblate Father's Home, Augusta, Maine

Nov. 16-17 - Annual Meeting New Jersey Farm Bureau, Governor Morris Inn, Morristown, N.J.

Nov. 16-18 - 2nd Annual Cornell Equine Conference, Cornell University, Ithaca, N.Y.

Nov. 26-30 - Annual Convention National Milk Producers Federation, Americana Hotel, New York City

Dec. 4-5 - Cornell Seed Conference, Cornell University, Ithaca, N.Y.

Dec. 9 - Registered Heifer Sale, Cornell University, Ithaca, N.Y.

Dec. 10-14 - Annual Meeting American Farm Bureau Federation, Convention Center, Los Angeles, Calif.

ORGANICALLY WRONG

by Donna Evleth

Organic foods may claim at length
To give me greater health and strength,
But all I know is, awfully quick,
Their prices leave me pretty sick.

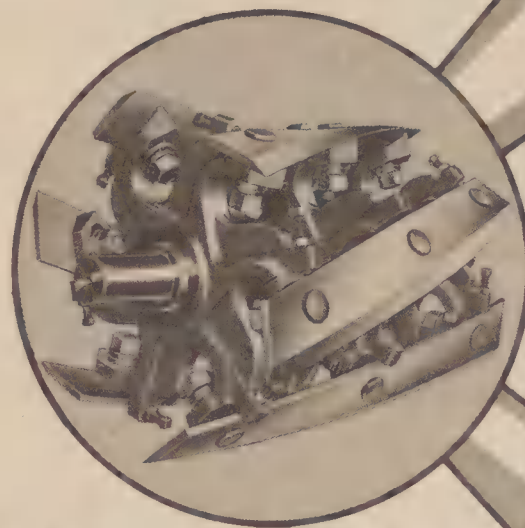
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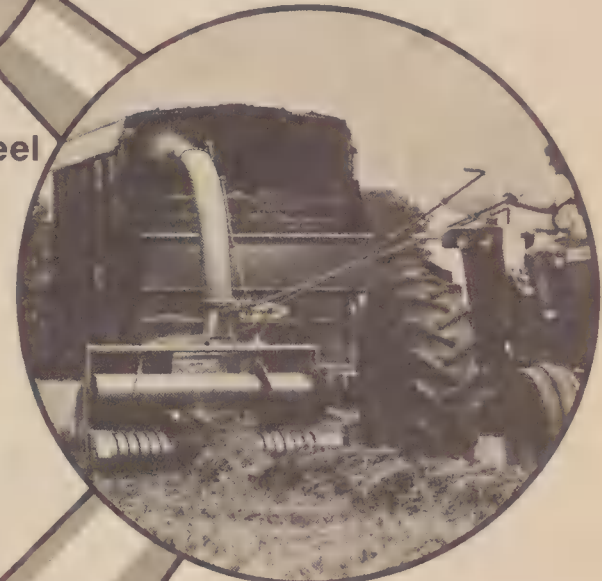


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FH3-972

Grandmas pay the bills



THE first winter storm always seems to arrive too soon... with heifers still out, not enough room for the dry cows, and the water tub frozen up because we forgot to fix the wire to the thermostat that got broken last summer.

All this frustration can give one a feeling of shock, but after a hard day's work the shock starts to wear

off. In a few days, with the winter routine established, a little thought will make us realize that this past year, despite hurricane Agnes, was pretty good to most of us and we are ready for everything old man winter has in store for us.

A winter storm we can cope with. The tragedy some people have faced because of Agnes, or the loss of a

friend or community leader by untimely death, is harder to face up to. But farmers are a hardy breed, and perhaps because of their yearly bouts with weather and nature in general, they seem to look at the good side of things and make the best of what is left after a disaster.

Loss

Our local area lost a friend and community leader this summer when Walter Jensen of Copake died, comparatively young, while working on his dairy farm. Many of the people I have talked with since... family and close friends of Walt's... spoke not just of the loss we all suffered, but of how fortunate we were to have had the opportunity to know and work with him during his lifetime. All of

us gained in many ways from what he did and the examples he set.

The newspapers listed his many accomplishments, honors, and his service to the community. To most of us, myself included, his most important accomplishment... besides raising a fine family... was that he combined being a top cow man with good business and farming practices to be a truly successful dairyman.

To me, one of the best indications of a successful dairy is that many of the cows are old, but still producing at a profitable rate. We are told that it takes a heifer up to two lactations to pay for herself. After that she is paying us a living. Of course, the more of these third-plus lactation animals we have, the more we can pay on the mortgage.

A dairyman with a 40-percent replacement rate... as is typical in California, and even in some of our own herds with high production averages... might head up the DHIA list but is often unable to pay his bills. A herd with many older cows in good production not only makes more on milk but has animals to sell as replacements.

Leaders

The Jensen herd (tested as Topeera Farm for years) has consistently been one of the leaders in production in the area. When 5,000 and 6,000 pounds of butterfat (lifetime production of a cow) are listed, there are always a large number of cows from the Topeera herd. When a sale consignment is made from this herd, other dairymen show their respect by the prices they pay and up to \$5,900 has been paid for a single individual female.

The Jensen cow I remember best was old Pieterje. She left the herd at 21 years after producing 238,000 pounds of milk. Fantan recently left at 19 years after producing 215,000. All but two females in the present herd are home bred and raised. New blood has been brought in by semen or an occasional young, well-bred cow.

Early in his career, Walt developed a philosophy of dairy farming that is worth studying. He liked cows and enjoyed working with them, but they had to pay their way to justify being in the herd. I remember him quoting his father, who was not a dairyman, but must have understood animals, "When you tie an animal up, you not only have the responsibility to feed and water it, but you must keep it clean and comfortable."

Walt's wife's family are top cow people, too, and I presume he learned from his father-in-law, Adrian Langdon, how to pick a cow. The typical Topeera Farm cow today... since the late forties, in fact... has been a big, upstanding animal with large capacity, a strong udder, and good legs with flat bone. It is a recognized fact that upstanding cattle live longer, whether they be beef or dairy.

The biggest reasons for cows leaving any herd are breeding problems and mastitis. These problems are prevented by programs involving never-ending routine, good simple records, and perseverance.

When I first started doing veterinary work at Topeer Farm in 1947 (Topeera stands for Tom, Peter, Eric

American Agriculturist, November, 1972

Surge QTO*...your next step to better cow milking!



**Stops over-milking...
cuts labor costs...
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protects herd health.**

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We can't promise that you will see all of these benefits when you milk your herd with Surge QTO milkers. But, we do promise you

that it can milk a herd of cows easier, faster and more efficiently than anything we've ever offered for sale. If you're in the business to stay... if you want to grow... if you want to improve profitability, reduce mastitis problems, and prolong the milking life of your cows... perhaps the Surge QTO milking system should be your next step.

Write for the free booklet shown below, or let us know if you'd like to see a Surge QTO milking system in operation. We think once you've seen it you'll agree with dairymen all over America... dairymen who know... that Surge QTO is the way to go!

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See the results of milk tests—
read what dairymen say
who have used QTO milkers.



SURGE

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*Surge Automatic Milker System

and Amy, and the "A" was not added until later), Walt already was participating in New York's Mastitis Control Program, and had as good a set of breeding records as I've ever seen.

Today, we talk of preventive herd health programs as though they are new. The Jensen herd was on a preventive herd health program years before I ever heard the term.

When cows got sick at Topeera Farm, they were noticed immediately and something was done immediately. A call from Walt might come at most any hour, but first you knew that the cow had just gotten sick, and second, you got a concise history and temperature reading so you knew what to expect.

Every sickness shortens a cow's life a little, and the longer she is sick the longer it takes her to get back in the milking line. A cow sick for three hours and treated has a lot better chance for survival... and is back milking a lot quicker... than one not noticed for twelve hours, and then given "a little pen-strep and cortisone" for two days before a veterinarian sees her.

Started Right

Old cows still producing profitably not only must have the necessary heredity traits, and be cared for properly as cows, they must be started right as calves and fed correctly all their lives. Topeera Farm calves get off to a good start in individual stalls, and each calf is a recognized individual to the man who cares for them. At vaccination age, they always seem bigger to me than most calves of that age.

I do not think what they are fed is as important as how they are fed. Strict routine and care in such things as temperature of milk, cleanliness of equipment, and quality of hay and grain are musts in good calf raising. As yearlings, they cannot just be thrown outside and forgotten. Topeera Farm young stock always look as though they are ready for the show ring.

Heifers at Topeera Farm are generally bred to a young, disease-free bull. When they calve, they are watched closely and helped when necessary. I cannot help but feel that a heifer who struggles twelve hours having her first calf is not going to live as long as one who gets help.

Profitable milk is made from a cow who is an efficient converter of roughage to milk. Cows were born to live on roughage, and they survive longer on diets with plenty of good roughage. How you farm your fields makes a difference with how good your roughage is, and indirectly with

how long your cows live. Topeera Farm always seems to have good roughage.

Good Men

Good men to care for them are important to long-lived cows, but it takes a good man to inspire other men to do their best. Walt treated his men with the dignity and respect they deserved, and they responded by staying for years. Everyone on the place was responsible for noticing heats, calving problems or things such as malfunctioning equipment that could cause problems.

Each man had his string to milk and care for. On a man's day off, Walt (and today his son Peter, who has taken over) milked his string. In this way, Walt milked every cow in

the barn at least one day per week. There is no better way to know your cows than to milk them yourself, and if you don't know your cows you don't keep them around for fifteen or more years.

Over the years, there were several good cow men with Topeera Farm. Frank Tiernan just completed eighteen years at the farm. He is one of the best milkers I know, having that touch of artistry that permits him to get the milk out of an old cow whose udder has finally gone pendulous.

Frank used to milk an old cow named Birdie, who did not like veterinarians. He told me I could never learn to milk her because I didn't know how to whistle the tunes she liked!

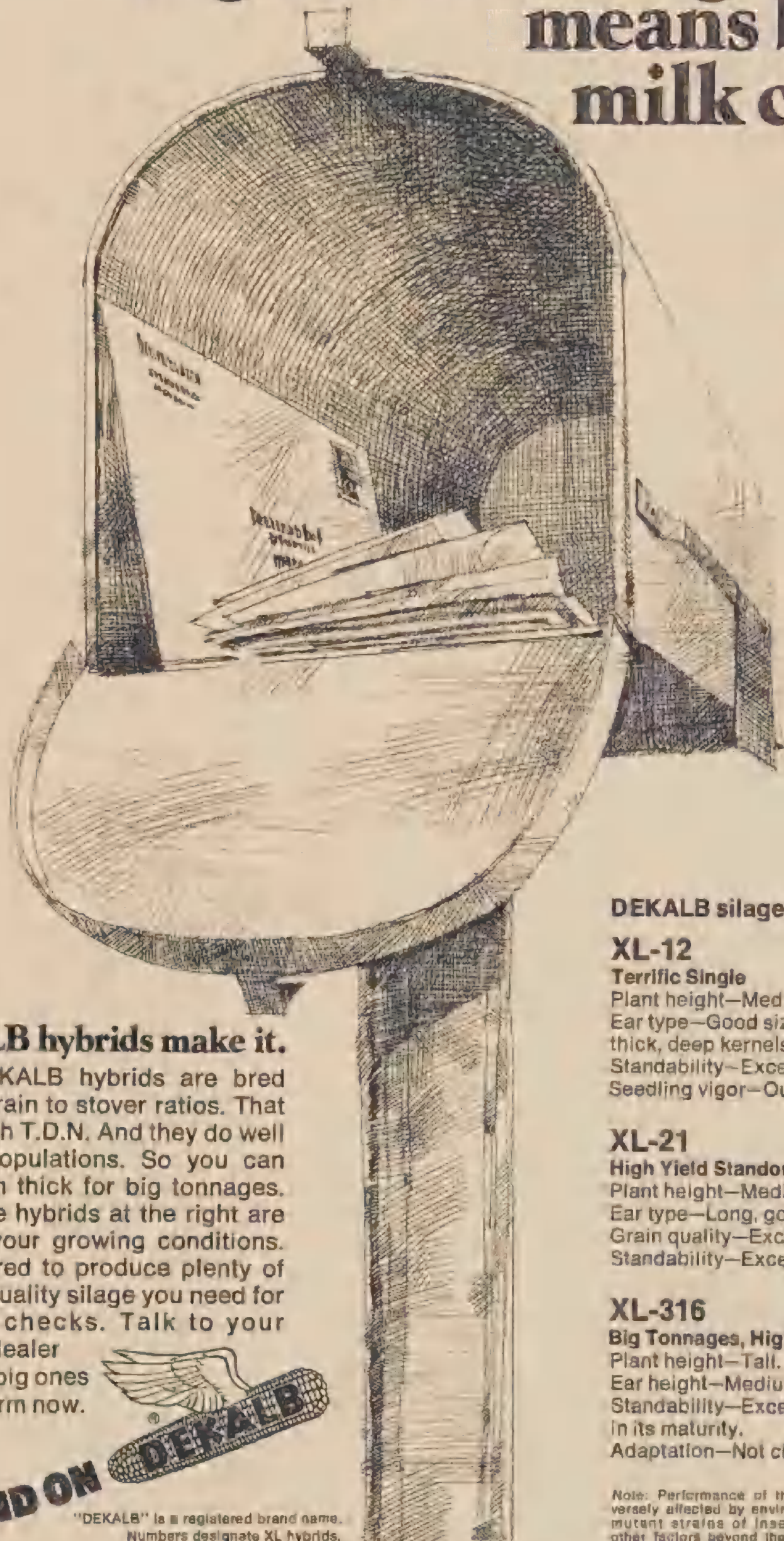
I never saw Frank over-milk a

cow, nor did I ever see milk left in his cows. He got them ready, put the machine on at the right instant, and got it off when they were done. On cows like Birdie, of course, a little massage and kindness was used, too.

Another good cow man who worked for Walt was George Rogers, (now deceased), as well as Bob Trudell and Bill DeGrosso. Both have retired from dairying.

Walt's son Peter, and the other men on Topeera Farm today, are carrying on a tradition that is proud but demanding. To some, the rewards of dairy farming seem meager or unobtainable but to Topeera men the rewards are easily obtained and well worth the effort, because they learned from a man who knew the way.

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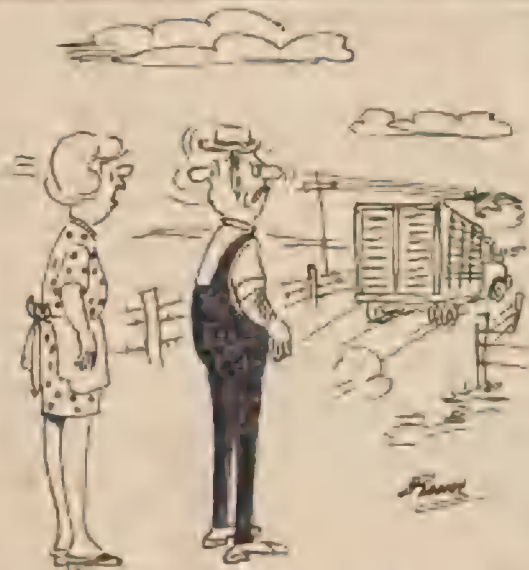
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American Agriculturist, November, 1972

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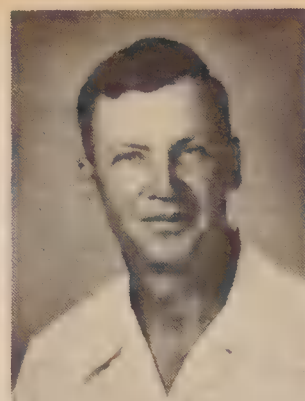
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Gayway Farm Notes

by HAROLD HAWLEY

DECELERATE

For close to thirty years, we have had an almost constant growth experience. Like others who were farming "for keeps," we were adding land, buildings and livestock... as well as improving soil fertility, draining and enlarging fields, switching rotation, and in general enjoying the present and planning for the future.

From a one-man operation, the business had grown to require some hired help... later on, son Bruce bought in as a partner. Subsequent growth of the herd led us to hire chore-time help, and some day-help in the summer. Along came 1972 and a spot of ill health, and suddenly a change in plans became appropriate.

Bruce carried the ball during July and August. Near the end of August... with the work piling up, and with our daughter about to return to college (she had been our tractor operator par excellence)... it was thought best to let the milkers go.

You will be correct when you surmise this was not an easy decision. Once the cows were gone, it became clear that had been a wise move. With more time for field work, Bruce began to get on top of the work load. Somewhere along during this period, it began to make sense to think about selling the farm. Bruce wasn't interested in keeping it alone, so we rather reluctantly decided to sell it.

More Decisions

A decision of this kind seems to bring on the need for a whole bunch more. For instance, do we try to sell it all in one piece, or break it up into units a little easier for potential buyers to finance?

It was decided to offer enough land with the buildings to make a unit capable of producing enough feed for the livestock that the buildings would house. We had been farming a good bit more acreage than that (what with land we owned, and land we rented), but we thought it might be easier to find a buyer for a 140-head dairy setup than for something larger. The extra acreage had been used for growing alfalfa and corn for sale.

We had to make a few assumptions and go ahead on that basis. For example, we take it for granted that whoever buys the place will milk cows on it. If so, he will want feed in the silos for the cows... and hay in the mows for the young stock.

The biggest single decision involves whether to put high-moisture ground corn in the silo. Depending on what price one predicts for this fall, it takes at least \$15,000 worth of corn to fill the silo. Once we get it in there, we better hope someone wants to feed it here on the place!

Even on hay there is a little of a bind. We always raise a good bit of

hay for sale. This year, we expect hay to be worth some money and would like to hold it for awhile. It would be a lot simpler if all the hay for sale was gone, but guess we'll do it the hard way.

There must be a million other things to decide... starting, of course, with what we hope to sell for. We felt it was important to get some help in determining the market value of what we proposed to sell... so got in a pro.

He appraised it pretty thoroughly and came up with a figure that he thought reflected its value. "Value" or "average selling price," etc... is a reflection of the level of several previous similar sales... some of these too high... some too low... depending on the needs, moods and whims of the buyers and sellers.

At any rate, after arriving at a figure at which we would sell, we were ready to think about some of the other considerations. Assuming one man with cash in hand... and another with some cash, good character and the evidence of ability to run the place... do you spurn the cash offer and carry a mortgage? How much extra taxes will be involved if cash is accepted?

As we have done so frequently over the years, we looked to some of the folks at Cornell to help us with this one. Any discussion along these lines also involves consideration of whether to intentionally delay until some future date the sale of any other parcels than the main home-stead piece.

Unexpected

One interesting and unexpected development emerged from all this activity. Several people who had said nothing in the past... on the assumption that we were farming the place and wouldn't sell off... suddenly came forward to tell us of dreams they had been entertaining... dreams that involved some of our land or buildings. For example, we overnight discovered that an old barn with hand-hewn beams and wide boards is more than a sagging old hay storage to some people.

So too with an old black walnut grove kinda grown up to brush and berry bushes, not to mention a little poison ivy. To at least one individual this is a homesite par excellence.

Quite early in the game, it became evident that we'd have to make a commitment on these so we could tell a potential farm buyer exactly what we were or were not offering to sell him. Naturally, somebody is going to feel mighty stupid if these or other items are held out, and then they don't actually sell. We aren't yet experts at figuring out the percentages, or the probable gap, between those with desire and those with demand.

(Continued on next page)

American Agriculturist, November, 1972

It's like some of the folks who look at the farm. Maybe they come from a 50-cow setup with about all the debt load it will carry. They might like to change farms, but it's a little hard to see how they could finance an expansion from 50 to 140 cows... with the extra land, buildings, machinery, supplies and all the rest that would be involved.

City Folks

From time to time, we've heard friends, who live much nearer New York City than we do, tell about the eagerness of some urban people to get out of the city. Now "out of the city" really means "on the land." Getting away from it all is understandable... but not when it means giving up a job, home, a way and pattern of life to move upcountry into a situation that is almost as foreign to them as one can imagine.

Let me illustrate. As I write this, I have just returned from a telephone conversation with a doctor's wife on Long Island. He has a very prosperous practice... which he is not about to leave. The family would like to live elsewhere... hopefully not so inaccessible but that he could join them on weekends.

My first reaction was that all they need is a home upstate... back along a dirt road among the trees if that is their dream. But there is more to it than that. The good doctor has money to invest... and where better, he asks, than in a farm business? But the farm-business home he visualizes might also enable his young family to grow up with skills and attitudes so they might never need to face the "big city rat race."

Subject to considerable person-to-person variation, we've heard this story from several people who have seen our ads of a farm for sale. If they buy a farm, they will need to hire both supervision and labor... and depend entirely on someone else to make the thing go. Of course, for some of these folks, showing a profit is not necessary. The benefits that accrue to the family are more important than anything else.

Anyway, for a guy who has been concerned about soil fertility, levels of production, efficiency and profits, it takes a little getting used to. Considerations like plans to ride the horses, hunting, extra housing for guests, etc., are more important measuring sticks for these people than some of the ones we've traditionally used.

It obviously is no business of the seller what a new buyer does with a piece of property, as long as he pays for it. However, let there be no mis-

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JOE E. BURESH



"It's some woman libber's farm, I guess they feel they have to go all the way."

American Agriculturist, November, 1972

take about it, enthusiasm will be much greater hereabouts for prospective buyers who are real farmers and who have ambitions along those lines. The money of the others is just as good... so one of them may end up as the new owner, but only as a second choice.

LATE HAY

For weather reasons, some first cutting alfalfa was still on the stalk in late August or early September.

Anyone who hasn't seen alfalfa left uncut until that date should be able to come up with a mental picture. Of course, if the field was weedy, the weeds would have outgrown all else and dominated the

scene. But if weeds weren't a problem, the mental picture would be wrong.

After it reached full maturity, much of the old growth would begin to rot off at the bottom. Of course, in a thick stand, it couldn't all fall flat on the ground, but by the time the second growth had come on up through it and reached blossom stage, a surprising amount of the first crop escaped the mower. We talked with several fellows who were quite surprised to find themselves baling hay which may not have been top cow hay, but which certainly was going to make a lot of heifers grow some next winter.

As a matter of record, some good stands of alfalfa may well be the best thing that ever happened to a lot

of farmers this year. In spite of everything, a lot of tonnage was taken off... and a late cutting was a necessity on many farms. Even if there was the risk of loss of stand, a lot of folks figured this was the year to take the chance. Of course, as the college people pointed out, stands which were well fed and on well-drained soil had the best chance of coming through if the cutting was taken off at the wrong time... that is, ahead of the frosts and before the new growth got up there.

Anyhow, with prospects of needing all the hay they could get, and with an understandable reluctance to pay the price that hay may cost this winter, a gamble on losing a stand of alfalfa seemed to many to be a calculated risk all in their favor.

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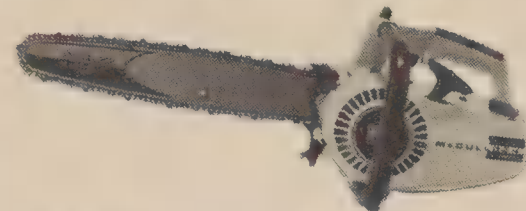
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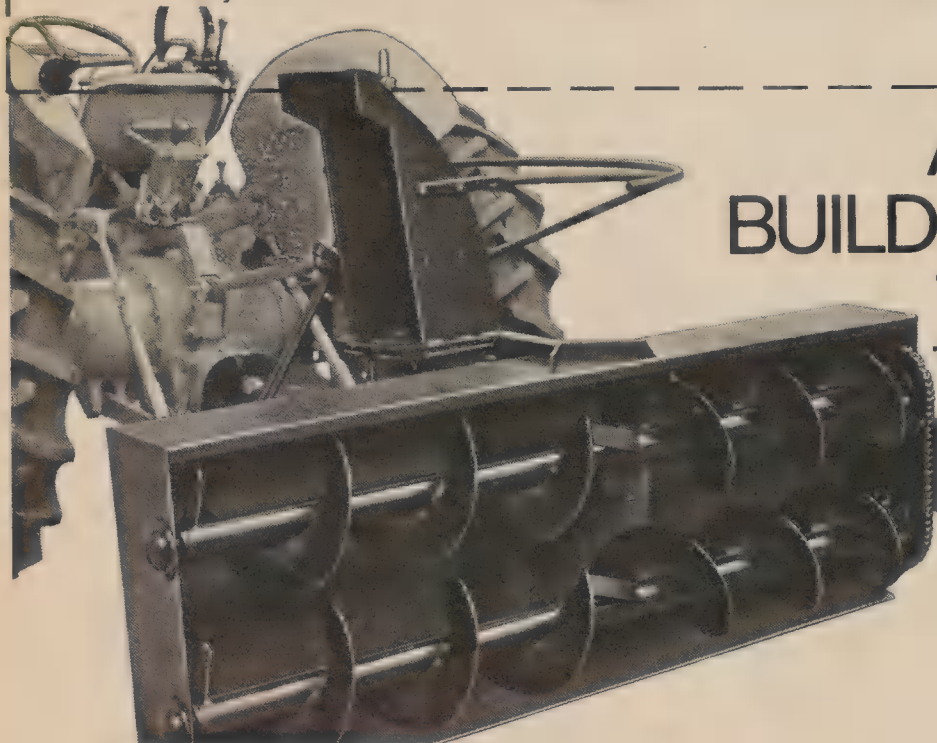
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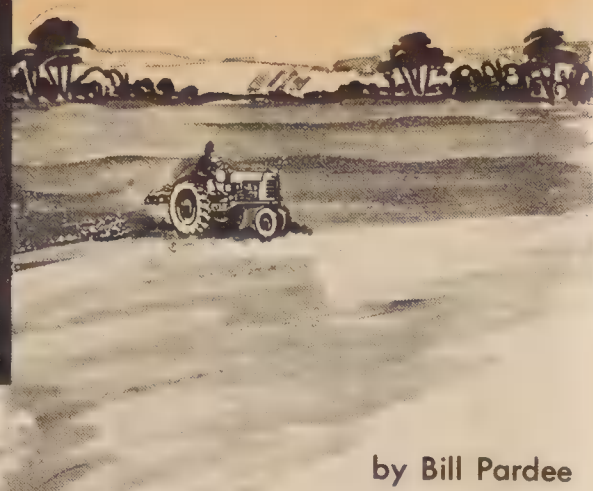
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What's NEW in the FIELD



by Bill Pardee

SOYBEAN interest is booming in New York and other Northeast areas where this crop has never before been popular. Cash-crop farmers see soybeans as a possibility to replace traditional crops now suffering from reduced demand or low prices. Dairy men note high-rise prices for soybean oil meal and wonder about growing their own protein concentrate. And the arrival of new soybean roasters and extruders makes possible local processing of beans into easily handled feed.

Soybeans aren't every man's crop, but we've no doubt some farmers can perk up profits by growing or using them. We're also sure others can lose their shirt. Here's a rundown on factors to consider, if you're thinking of growing soybeans for sale or feed.

Some soybeans are already grown in central and western New York and many are grown in southern and eastern Pennsylvania. Soils in these areas can grow reasonably good soybeans and farmers already have the necessary planting and harvest equipment.

Biggest limiting factor in New York and northern Pennsylvania is the lack of heat units in our growing season. Our summers are just too cool and too short to match Cornbelt soybean yields. Still, with good variety choice and early planting, profitable yields are possible, even if bumper crops won't be common.

Poor Markets

Soybeans have long suffered from lack of good markets in New York, unlike midwestern beans that readily move to nearby soybean oil extraction plants. Our beans must go to Ohio or southern mills. This added transportation expense, coupled with a dismal yield history, has made soybeans a relatively unprofitable crop, and limited New York acreage to a few thousand acres per year.

Several new developments now change this picture. A worldwide protein shortage has boosted the price of soybean oil meal. Ground whole soybeans can substitute for soybean oil meal on a one-for-one basis in dairy rations, assuming a small allowance for slightly lower protein in ground whole beans. These average roughly 38 percent, instead of 44 or 50 percent in soybean oil meal.

If you're considering feeding ground unroasted beans, it's important to note several factors. First, soybeans contain an enzyme, lipase, which speeds oxidation of soybean oil, causing rancidity. During warm weather, feed containing ground unroasted soybeans should be fed within a week of grinding to prevent the material from becoming rancid and unpalatable to livestock. It'll keep somewhat longer in cold weath-

er, but it's still not something to leave sitting long.

It's also important not to mix ground, unroasted soybeans with feeds containing urea. An enzyme, urease, in raw soybeans attacks urea, releasing ammonia. Cows will turn up their noses at such feed.

These factors aside, ground unroasted soybeans can make excellent protein supplement for dairy cattle, where rumen bacteria break down protein sources and manufacture amino acids. But not so for hogs, horses and poultry... all single-stomached animals. These must get essential amino acids supplied directly through protein digestion. Raw soybeans contain several chemical inhibitors that partially block their digestion of protein, thus eliminating the main reason for feeding soybeans.

Roasting soybeans at temperatures above 200 degrees takes care of all these proteins, deactivating lipase, urease and trypsin inhibitors. Several roasting operations have been set up in New York. These outfits, selling from \$2,000-\$5,000 each, not including the supporting materials and handling equipment, can do an effective job of roasting soybeans. In addition, several machines that extrude the soybeans through plates under pressure, are also present in the state. These soybeans are flaked and heated during the extrusion process by pressure.

Owners of such equipment frequently perform custom roasting and several buy additional soybeans, which they roast and sell as components in dairy feed. Both roasting and extruding are effective when done right. It's even possible to rig up corn dryers or other equipment for the job. But don't try this without checking out all the specifications.

Critical

The duration and temperature of roasting are critical and depend on the moisture of each lot of beans. If cooking temperatures are too low, you won't deactivate the enzymes noted above. If they're too hot, you will tie up proteins into forms livestock can't digest.

Dairy men we've talked to who feed ground soybeans, either roasted or raw, like the feed and the way their animals perform on it. Soybeans can be used up to the full amount needed to replace other protein supplements with no ill effects.

For grain growers, there continues to exist a market for New York soybeans at mills in Ohio, Delaware and Virginia. Trucking is involved but several growers and shippers have worked out payloads in both directions to cut the cost and have made this a profitable enterprise. Increased opportunity for sales to

American Agriculturist, November, 1972

local dairymen may cut transportation costs.

Yield and price are the two big factors to consider in any crop endeavor. Soybean yields can vary widely, depending on your soil, your climate, your skill as a grower, and just plain luck. New York yields have ranged from total loss up to 40 bushels per acre. Test plot yields and at least one farmer's field have reached 60 bushels per acre. With good production practices, well adapted varieties and well-drained fertile soils, it's my belief that farmers in longer season areas should be able to beat 30 bushels per acre, the yield level where soybeans can be profitable.

Prices are harder to predict, but lately they've been encouraging to soybean growers. Recent midwest soybean prices, pushed up by the demand for soybean oil meal, have soared into the \$3.00-\$3.50 range per bushel. It's anyone's guess how long they'll remain at that level or whether they'll go on up or back down.

For the past several years New York prices have ranged 25-50 cents under Chicago price. This reflects the cost of shipping our beans to the midwest. When Chicago beans were \$2.50, not much was left for the New York grower. However, at recent higher price levels they have moved into a more competitive situation. Still, if you're making long-term plans, it would be safer to use \$2.50 as your projected sales price rather than \$3.00.

Normally, you can plan on \$60-70 per acre for growing costs, including land charges. Harvest and handling will run another \$10 or so per acre. So at 30 bushels or better per acre and \$2.50 or more per bushel, soybeans can move into the profit range from a grower standpoint.

Costs of grinding and for roasting will come on top of this and should be figured in if you're planning to feed them. These costs vary widely depending on the equipment selected, the amount of beans you spread costs over and other factors, but can range from 15 to 70 cents per bushel, depending on what you want done.

Next question is whether you can make more money growing soybeans than some other crop, particularly corn. For many farmers, the answer will favor corn. Corn is generally more dependable and its yield potential in the Northeast is such that it may be more profitable to grow corn for feed or sale. Then purchase soybeans or soybean oil meal elsewhere. But for some farmers the answer will be soybeans. If so, they should try them on a small acreage first, before jumping in with both feet.

Production

In considering soybeans, you'll want to know the major production practices you'll have to follow. Most important factors are wise choice of fields, first-rate weed control, careful selection of variety and good harvest practices.

Dr. Harry MacDonald, agronomist at the New York State College of Agriculture at Cornell, has carried on research with soybeans for many years and much of the following information comes from his work.

American Agriculturist, November, 1972

Soybeans require a well-drained soil. They are a shallow-rooted crop that does poorly on wet or poorly-drained soils, yet they don't do well on sands. Like other legumes, they require a high pH, 6.5 or better.

Weed control is a must since soybeans can't stand much competition. Most times you'll need a herbicide. Several excellent chemicals are available, including LoroX alone or in mixture with Lasso as pre-emergent sprays.

Where nutsedge is a problem, it's probably best not to sow soybeans. However, Vernam incorporated in the soil can partially control nutsedge and get annual grasses. Treflan, also incorporated, hits annual grasses but misses many broadleafed weeds, particularly ragweed. If it's quack-

grass you've got, grow corn instead and treat with atrazine.

Soybeans do not require high rates of fertilizer. Still you'll want some fertilizer. New York recommendations call for 100-200 pounds of a ratio close to 5-20-10. Pennsylvania, with sandier soils, suggests a total of 0-45-90 for a yield goal of 40 bushels in their established soybean areas. Soybeans do well on fertile soils, but give only minor response to fertilizer applied directly. Best bet is to plant them following earlier well-fertilized crops, such as corn or dry beans or vegetables.

Soybean roots are shallow, burn more easily than those of corn. Fertilizer for soybeans can be applied before planting or banded at planting time. Keep away from pop-up

fertilizers to avoid seedling burn.

Inoculation with *Rhizobium* bacteria is a must to provide bacterial inoculum for nodule development and nitrogen fixation. Soybeans are a legume like alfalfa and *Rhizobium* nodules can fix sufficient nitrogen to produce a maximum crop yield. Inoculation is particularly important to first-time soybean growers, since there will be no *Rhizobium* bacteria carrying over in their soils. Be sure to get a strain from your seedsman that's specific for soybeans. Alfalfa and clover strains will not give effective inoculation of soybeans.

Planting date is important on soybeans as with other crops. Soybeans respond to early planting... the earlier in May, the better. However,

(Continued on page 18)



A Great Future...

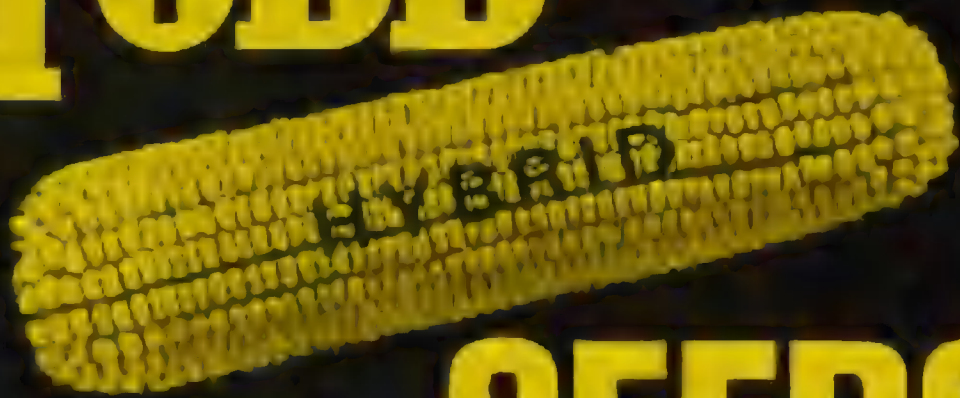
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Soybeans

(Continued from page 17)

corn responds more to earlier planting than soybeans, so should be planted before the first of June for top yields. Short-season varieties can be planted up to June 15 and still make a crop but yields will be lower.

Your corn planter can do a good job planting soybeans. Use soybean plates, unless you have a plateless planter. Sow at about 8-9 seeds per foot in a row. These should thin themselves to about six plants per foot of row, the ideal population. Rows 20-28 inches in width have given highest yields in New York trials. Our soybeans do not bush out sufficiently to cover the inter-row areas in 36-inch rows and much useful area of the field is lost.

Drill

Many New York growers drill their soybeans, either in 7 inch drills or in 14 inch widths with every other drill hole stopped up. In May plantings this method will yield 2-5 bushels less than 20 inch rows. Early June plantings will show little difference. The key here is to get good weed control from your herbicide. If heavy rains prevent herbicide application or dilute its effectiveness, you can lose your crop or suffer severe loss with no opportunity for cultivation.

When planting soybeans, follow the planter with a roller or cultipacker to press stones into the ground. Use a herbicide to avoid the need for cultivating. Stones will cause problems at harvest time, as will ridges or any other change in soil relief that will make you raise the combine cutter bar.

Harvesting soybeans isn't hard, yet many growers lose substantial yield in the process. Combine setting is all-important. Set your machine up carefully, using your operator's manual for proper settings for cylinders, concaves, and sieves. Then pay particular attention up front, where most soybeans are lost.

Carefully adjust the height, speed and position of your reel to move beans gently into the guards and sickle bar. Too rapid beating of the beans by the reel knocks beans from the plants. Too passive reel action may not bring beans in far enough.

Combine as close to the ground as possible, pick up low hanging pods. With good stands, most pods set above combine height, but there'll always be a few below. With no stones or with stones pressed into the ground by rolling at planting time, you may be able to combine at the 3-4 inch height. This should bring nearly all beans into your machine. However, no one wants to put a stone through an expensive combine, so you'll be tempted to raise your cutter bar up to 4-6 inches, if stones are there. This will reduce yields substantially. If stones keep your cutter bar up, best bet is to plan on rolling them in next year at planting time, or selecting another field where they'll be less of a problem.

People frequently suggest to us plant breeders that we develop soybeans that will not set pods close to the ground. This is a fine idea. However, the ability to develop a heavy pod set seems to reach all the way up and down the plant and if we

select one that sets a few pods low down, it frequently does the same up above.

Midwest growers who find too many low pods may boost their population. This will normally reduce pods close to the ground, but may not add substantial yield up above. It may even increase lodging and reduce yields, if they get too high. Six plants per foot of row is the best compromise.

If soybeans have an expanding place on Northeast farms, it's in central and western New York and in central and southern Pennsylvania, both areas with enough growing season to mature relatively high-yielding varieties. Tests have been discouraging in high elevation areas and in northern New York, due to the shortness of growing season, heavy soils and other factors that seriously limit yields.

No matter where you farm, careful variety choice is a must. Varieties too early for your region won't produce profitable yields and too late varieties won't mature. In central and western New York, Wirth and Chippewa 64 mature at 105-115 days and hit just about right. For slightly longer seasons in western and central New York, Rampage, Harosoy 63, and Hark can make it if planted in mid- to late-May. Corsoy, slightly later, can make it only in the longest season areas of the state.

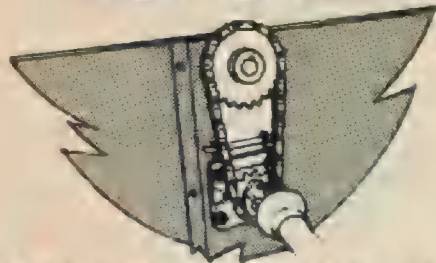
For northern counties or high elevation areas, Traverse and Merit are possibilities. Pennsylvania agronomists suggest Chippewa 64 and Hark for northern counties. Hark, Harosoy 63 and Ansoy in central and western counties, and Ansoy, Wayne, Adelphi, Clark 63, Cutler and Kent in the south and southeastern parts of the state.

The present worldwide protein shortage, which has caused high protein feed costs, coupled with improved knowledge of soybean practices may make soybeans a profitable crop to supplement our northeastern dairy industry. But this doesn't mean they'll pay for you on your farm.

Push your pencil first to be sure corn or other crops aren't more profitable. And move into soybeans slowly, starting with a relatively small acreage as you learn to grow and market the crop. It can be a good crop, but it's tricky and many farmers will lose money as they gain experience.

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Home-grown feed

by Craig Ligibel

"I don't mind writing out a check for fertilizer," Vermont dairyman Russ Demmon says, "but it sure galls me to write a check for grain. That's just gone money."

This philosophy prompted the White River Junction dairyman to go into a program of almost total feed production for his mixed herd of Holsteins and Milking Shorthorns. Now, he's able to produce one hundred pounds of milk for a feed cost of \$1.10 . . . which includes a purchased feed cost of only 25 cents. "Anyway you figure it," Demmon says with a smile, "with milk prices at \$7.08 a hundredweight, whatever I can save in feed costs is money in my pocket."

At the present time, Demmon says he's been able to attain production averages of 14,700 pounds of milk and 530 pounds of fat on a ration consisting of 98 percent home-grown feed . . . plus 9 pounds of soybeans every day. Milk production is up by more than 3,500 pounds per cow since 1965, the year Demmon began his home-grown feed program.

Demmon explains his feeding set-up prior to 1965 this way. "It was like we were operating in the 1800's," he says. "The ration consisted of baled hay, purchased grain, and concentrates. Dairyman had been feeding their cows that same ration for years. I thought it was time for a change . . . at least on my farm."

"The first thing that convinced me to do something else with my feeding system," Demmon recalls, "was the fact that when we first started to produce some pretty good alfalfa, we'd lose leaves every time we touched it. There was just too little of what we grew in the field getting to the cow by the time we made bales, transported the dry hay to the barn and then handled it again at feeding time."

He solved this problem by harvesting his alfalfa as haylage and storing it at higher-than-baled hay moisture in a 2060 Harvestore. "It didn't take me long to recognize the advantages of haylage over hay," the Vermont dairyman says, "and the next year we erected another 2060 for additional forage."

Weather

Demmon reports that making haylage has major advantages compared to making hay in a climate that is inclined to include extremes of wetness and dryness . . . often at the wrong times. "When we start mowing in the spring," Russ says of the 125 acres devoted to alfalfa, "I just look at the calendar and not the sky. The trick here is to get that first cutting off the land quickly and get your second crop coming back as soon as possible. There's just no sense waiting on the weather."

"Our haylage generally tests out at 24 percent crude and 12 percent

digestible protein. Why should I pay somebody else for protein when I can grow my own?"

After two years on his haylage program, Demmon decided to complete his home-grown feeding system with the addition of another sealed storage, this time to store high-moisture ground ear corn (HMEC). "Now," he reports, "we've cut our

(Continued on page 21)

"We've got quite a few cows that are making 20,000 pounds of milk and we have one that will make close to 30,000 pounds this year," says Russ Demmon. "If the cow has the genetic potential to produce a lot of milk, we've got the feed to get it out of her."



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Dairyman David Syme of Scotland, Connecticut (seated), is chairman of the ELFAC board of directors. Professor David Ecker, farm management specialist at the University of Connecticut, joins Syme in going over his account books.



ELFAC

by Tom McCormick*

ELFAC, the most famous hired man in the Northeast, has a new home. The ELectronic Farm AC-counting Service recently moved into its own quarters in Brandon, Vermont.

The move is more than a physical one. It symbolized the growth in service to farmers, a service that takes some of the guesswork out of modern management.

John Page, a Vermont county agent, says that a farm begins to die as soon as the willingness to make changes disappears. And, since changes are a must, good records are essential.

"For some farmers, a year on ELFAC would be revealing and, I think, rewarding," he adds. "Certainly enlightening."

Beginning

ELFAC has been casting an increasingly brighter light since its founding by northeastern Extension workers in 1961. The basic idea is the collection of financial data as painlessly as possible so that farmers know how they stand.

To do this, ELFAC offers a variety of reports to its 600 clients. The most famous is probably the annual income tax summary. This classifies and totals the figures for easy transfer to tax forms. ELFAC also gives annual depreciation and investment credit reports, a boon both to farmers... and to their wives, who often do the record-keeping.

Mrs. Joan Essex of Vergennes, Vermont, says that this tax help alone is enough to make her a subscriber.

"What a relief! In less than three hours, I can have our return prepared. This is the greatest of pleasures."

Others echo her words. Without a doubt, tax-time assistance is ELFAC's most visible and popular feature. But equally certain is the fact that the annual business analysis offers the greatest long-term benefit.

"This is the heart of the system," says Dr. Verle Houghaboom, Ex-

*University of Vermont, Burlington, Vermont.

tension economist at the University of Vermont. "This gives production rates and ratios, income and expense ratios, and permits a farmer to compare his data with the averages of comparable farms. It's a practical system that helps a farmer pinpoint the strengths and weaknesses of his business."

Carey Howlett of Bridport, Vermont, says that this type of benefit takes a couple of years to become apparent. But he calls the comparisons "a very valuable tool for the careful operator to evaluate his own costs, returns, and yields. It will indicate where he should concentrate his efforts to increase his profits. This is the aim of every farm operator... but without a set of reasonably complete records he can't take that first step."

Monthly

In addition to the annual reports, ELFAC offers three monthly statements: a financial summary, an operating statement, and a listing of all transactions.

These reports show just where the money is going (and how fast, in comparison with last year), offer a complete accuracy check, and will, if used in cash-flow planning, ensure that money will be available when needed. This permits a farmer to take advantage of bargains and avoid high-cost credit.

Mr. and Mrs. Albert Turner of Waitsfield, Vermont, explain that ELFAC reports have been invaluable aids in financial estimates for loans, and have been handy for census forms as well as stopping excess-expenditure leaks. They also use it for tax management and planning each year.

Willingness

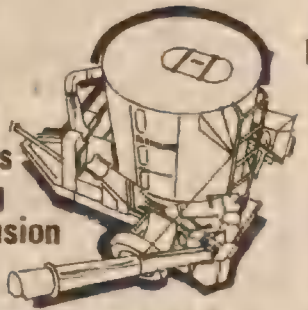
The willingness of the Turners and others to be quoted on ELFAC is typical of the interest of subscribers. Requests for reports on usage, and for suggestions for changes, always draw a good response. This has permitted ELFAC to change and grow through the years.

(Continued on next page)

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American Agriculturist, November, 1972

ELFAC

(Continued from page 20)

The combination of farmers and Extension workers on the various management boards also guarantees the blending of the practical with the theoretical that makes for progress.

The figures themselves, made anonymous by the computer and by pledge, have proved invaluable for research. While it is probably true that ELFAC farmers, as a group, tend to be above average, it's also true that they are excellent indicators of future trends.

New Era

In striking out on its own, in new quarters, ELFAC is maturing and ending the early period when its records were processed by Ayrshire Breeders Association, with a sub-contract to the Holstein-Friesian Association.

Feed

(Continued from page 19)

purchased-feed costs from \$18,000 to about \$8,000 a year."

But the overall dollars and cents isn't all Demmon thinks about. Naturally, he's in business to produce milk. He thinks his present feeding program helps him do that cheaper and more efficiently than his previous method.

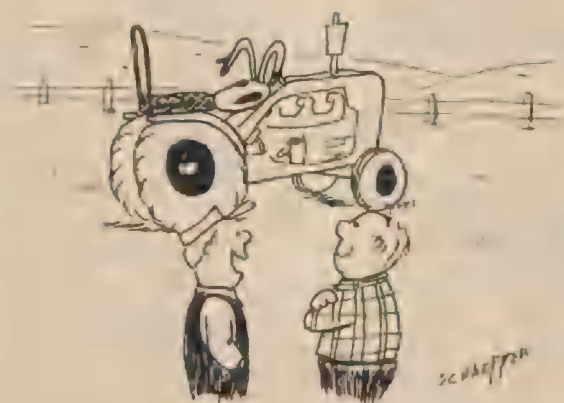
Merits

Speaking of the merits of feeding a combined ration of HMEC and haylage, Demmon says, "The whole trick is to balance the haylage and the corn. The ear corn is high in energy . . . TDN . . . and the haylage is high in protein. The two are a natural partnership as a dairy feed."

Breeding on the Demmon farm is 100 percent artificial. "We pay particular breeding attention to our 35 championship Milking Shorthorns. They go on the fair circuit every year and we're quite proud of their success." Demmon explains that although the Shorthorns only average about 10,000 pounds of milk, "by the time each heifer has completed her first lactation, she's made \$300 on the fair circuit . . . which, added to her income over feed costs, brings her right back up in total income with the Holsteins."

Russ likes to keep the Shorthorns in his herd because of their longevity. He has several which at age 13 and 14 are still producing a substantial amount of milk daily.

This Vermont dairyman has come a long way from 1961 when he started farming with 28 cows and a 20-hp tractor. "We only shipped 8 cans of milk a day then," Russ comments.



"You sure know how to keep your boy down on the farm, Ralph!"

American Agriculturist, November, 1972

Happy though the relationship was, ELFAC leaders felt the need for greater flexibility that only independence can bring. It is now increasing the scope of its reports and refining them steadily.

But just as the purpose of a farm business stays the same despite change . . . to produce food at a profit . . . so ELFAC's goal also will remain constant. Mr. and Mrs. M. A. Fullerton, Jr. of South Woodstock, Vermont, reflect this goal:

"ELFAC enables us to spot possible management errors quickly and check them out. And it gives us a quick picture of how things like finances, grain, and milk are going."

"This tells us how the farm is going."



ELFAC director David Stevens (left) co-owner of Sunset Hill Farm near Wells River, Vermont, visits at the new headquarters with ELFAC office manager Mrs. Mary Forte and Professor Verle Houghaboom, economist at the University of Vermont.



Telling it like it is — and was.

Roy Wotring, Jr. was raised on a Pennsylvania potato farm.

"I'm old enough to remember working with mules and hand tools," he says. "Everything then was lift, fetch and carry.

"Now I have a tractor-drawn potato planter and harvester. And, of course, I get better yields than my Dad ever could.

"In '55 I switched all my farm engines to Champions, and in all these years I've

had no problems. Why change back to another brand and have problems?"



Toledo, Ohio 43601

20 million people have switched to Champion Spark Plugs. This has been one of them.

Northeast FARM EXPERIENCE



Mike Lepter puts his back into unloading hay. The family's recently-built residence is in background.

GRATEFULLY SUCCESSFUL

Mike Lepter operates a dairy farm on Route 31 in North Coventry, Connecticut. The prosperous-looking farmstead, with its freshly-painted older barn (and a trim new one), might lead the casual observer to be a bit envious of "some farmer who inherited the place."

Not so. Mike was born and raised on a farm in Czechoslovakia... but when the Russians moved in, he and his family (because of their German ancestry), lost their Czech citizen-

ship and were forced to go to East Germany. Their property was "liberated" from them in the process.

Mike soon voted with his feet, and fled to West Germany... and began dreaming of the day he could get to the United States. Finally, his parents and sister also made it to the West, and they all came to America in 1950.

Painter

Mike managed to find a job as paperhanger and painter (at 75 cents per hour), and eventually went into business for himself. But farming

was in his blood, and... despite the objections of some friends and relatives... he decided to farm full time in 1960.

During the 12 years since then, he has built the business to 120 acres owned, another 120 rented (farthest distance 6 miles), 140 milkers, and 70 head of young cattle. The Lepters started with a 16-stanchion barn, extended it to house 44 stanchions, then built an 80-stall freestall barn, and finally enlarged that to add 80 more freestalls.

"At one time," Mike reports, "we had 44 cows in stanchions, and 80 in freestalls. It took about the same amount of time to do the chores for each type of housing... and I was convinced of the labor-efficiency advantage offered by freestalls."

Three Groups

Cows are separated into three groups... one group dry, and producing cows separated at the break-off point of 40 to 50 pounds of milk per cow per day. They're fed heavy on corn silage... 130 acres of corn were planted in 1972. Hay is also fed, at about four to five pounds per cow per day. Molasses (to enhance palatability) is trickled on silage as it goes by on the conveyor.

Two bunker silos store corn silage... 3,500 tons in 1971. Yields aren't as high this year; corn planting on the Lepter acres in a terribly wet season wasn't completed until July 13!

The Lepter family... including Mike's wife and four children (three boys)... have worked long and hard to make a success of farming. In the process, they have recreated the

story of millions of immigrants who came to America seeking opportunity.

Lost Farm

"My parents owned a family farm in Czechoslovakia," Mike comments, "and had it taken away from them. Before those bitter days, it was a good place to live... but not now. I lost the right to vote once... and maybe that's why I feel so deeply the injustice of the secondary boycott being used to intimidate some American farmers, and to force their workers into unions without the opportunity to vote on the matter."

"The secondary boycott is unfair to the farmer who has a product to market, unfair to the consumer who is intimidated at the marketplace, and especially unfair to the workers who are forced into a union without the opportunity to select which union... or whether to join one." As president of the Tolland County Farm Bureau, Mike has had the opportunity to debate this question publicly with a representative of Cesar Chavez... and his background makes him especially effective.

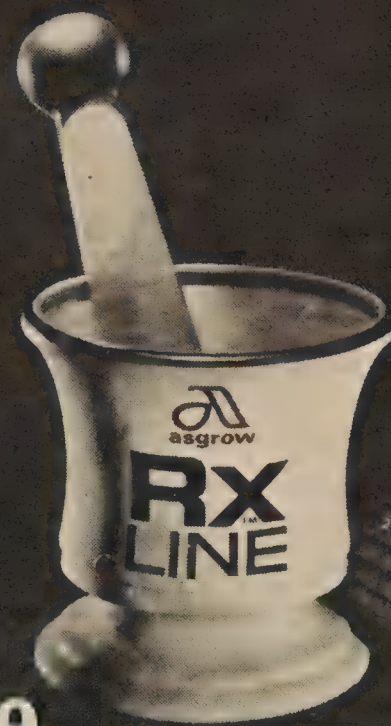
As is the case with most American citizens not born in the United States, he has never become infected with the "Hate America" virus that is currently so fashionable a malady. He says, "No country in the world offers the opportunity found in the United States. I've been in Russia and most European countries... there's no comparison in this respect."

"I think it's worth noting," he goes on, "that millions of people

(Continued on next page)



New Asgrow RX Line of Hybrid Field Corn--now available from Seneca Seed Salesmen



Seneca Seeds Salesmen, representing Robson Quality Seeds, Inc., are the new exclusive distributors of the Asgrow RX line of hybrid field corn in the Northeastern States, plus the full line of Seneca Field Seeds.

Contact the Seneca Seeds Salesman in your area. He will show you the recommended varieties of Asgrow RX Hybrid field corn and show you how to get top performance with Seneca legumes, grasses and cereal grains.

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In New Hampshire by Merrimack Farmers Exchange, Concord, N. H.

In Massachusetts, Conn. and R. I. by Farm Bureau Association, Waltham, Mass.

emigrated to America from all over the world, and very few ever returned permanently to their native land. My family and I are endlessly grateful for the opportunities we've had to build a farm business and satisfying life in this land of plenty." — G.L.C.

MUM'S THE WORD

Gerard (Jerry) and Janet Fuess (rhymes with trees) own 40 acres on the Red Hill Road near New Hartford, New York. Jerry has a full-time job at UNIVAC, but the entire family . . . including daughters Lori and Shelley . . . has teamed up to operate a growing business of raising hardy chrysanthemums.

It all started about 10 years ago as a hobby when Janet had 100 mum plants. In 1972, it had grown to 15,000 plants in a five-acre field! Plant types include what the Fuesses call mini, midi, and maxi . . . small, medium, and large size . . . and all are hardy.

The maxi-size plant is something to behold . . . a dark green, vigorous plant smothered with blooms. Field-grown in the well-drained soil of the farm, the maxi's achieve unusual size.

Sequence

The sequence of events in the business include:

- obtain rooted cuttings from growers who propagate them in greenhouses.

- plant these cuttings in the field with a two-row cabbage planter. The Fuess family can get 'em in the ground this way at the rate of 1,500 per hour.

- lavish tender, loving care on the growing plants . . . including spraying them every 10 days with an insecticide (Sevin), and a fungicide (captan).

- Toward fall, go into the field and dig plants . . . putting them in pots and hauling them out on snowmobile trailers. These trailers are low to the ground, have springs to cushion the bumps, and are ideal for the job. "Blooms must be showing color or the plants won't sell," Jerry cautions.

- sell potted plants to nursery and garden stores, and to other selected outlets, as well as meet the needs of a thriving retail business at the farm.

Plastic

In 1972, "The Mum Farm" grew 1,000 chrysanthemum plants in pots placed on black plastic at an outdoor site. Next year, plans call for 10,000

of these . . . watered (and fertilized) through a Chapin watering system.

"Growing plants in pots offers a lot more flexibility," Jerry comments. "They don't have to be dug just before selling, and they make it possible to spread out labor peaks into other seasons than summer." The potting mix includes one-third each of topsoil, perlite, and peat moss.

Up to this point, a neighbor has done the plowing and harrowing of land for mum growing. The only major item of equipment owned by the Fuess family is a tractor (two-plow size). Jerry rents a truck for delivery of plants to sales outlets.

The farming enterprise here is rounded out by 11 registered Hereford brood cows (20 head total) . . . some of them purchased from Arthur Godfrey's herd. The herd sire . . . appropriately named "Ezra" . . . is jointly owned with Cornell University.

The Fuess family works hard to keep things moving, aided by local people hired to help out. As with picking grapes, it's a job that appeals to people over and beyond the pay received.

If you're thinking of visiting "The Mum Farm," take the Snowden Hill Road south off Oxford Road just east of New Hartford, and then turn left on the Red Hill Road. — G.L.C.

FAMILY CORPORATION

Brothers Ben, Howard, and George Foster formed a partnership in 1940 to operate a dairy farm on the edge of Middlebury, Vermont. Later, their sons wanted to become part of the business . . . so the Fosters set up a closed corporation.

There are now six stockholders . . . the three original partners, plus three sons (Robert, Ted, and Jim) . . . of the corporation known as Foster Brothers Farms, Inc. Besides being part owners, the family members involved are also employees of the corporation. This facilitates the development of a retirement plan for them, as well as offering other management flexibilities. The corporate structure offers several business advantages over non-corporate organizational patterns, but flexibility and additional alternatives are perhaps most important.

It's a sizable outfit, with 1,300 acres owned, 325 more rented, and 235 milking cows. Yet, it is entirely owned and managed by two generations of one family. — G.L.C.



Jerry and Janet Fuess are justly proud of their chrysanthemums.

Introducing the answer book:

The Pfizer Animal Health Directory.

Pfizer's new Animal Health Directory is the fastest, easiest way to find out what to do for an animal health problem. Just look up the species and the disease or pest problem you're having with an animal. The products to treat it, the dosage and packaging are listed right there. It's all color-coded by available usage forms so you can see at a glance what's best for you. And

it's a free service from Pfizer. When you get an animal health problem, save yourself time and confusion with the Pfizer Animal Health Directory. It's at the Pfizer Animal Health Department of your local farm supply store.



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Animal Health Directory

Check here for answers

BEEF AND DAIRY

HORSES

PETS

POULTRY

SHEEP

SWINE

MINK, BEES AND BEEF CONTROL

Can you help?

So many readers come to us for help through this feature that we continue to have a huge backlog. We are trying to catch up a little by printing a number of items in this space.

Remember when you send in requests for such assistance that it sometimes takes a year or more to get items into print. Because we are inundated with letters, we must reserve the right to exercise our judgment as to priorities; and we cannot guarantee that every item will eventually appear. We can only promise to do our best with the space available.

Mrs. Donald Sweeting, Sterling, New York 13156 would like articles, postcards or other interesting things on peacocks or peafowls.

Information wanted about the complete volume of Dr. Frank Craine's four-minute essays. A volume consisted of 9 or 10 small books. Write to Robert Wirth, R.D. #2, Canandaigua, New York 14424.

Antique car owners' manuals, sales brochures or sales literature are wanted by Elmer Schuler, Jr., 3933 Lower Mt. Road, Lockport, New York 14094.

Wanted, a battery-operated telegraph set using perforated tape on the sounder, and a copy of "Uncle Tom's Cabin" by Claude H. White, 57 Perkins Street, Bristol, Connecticut 06010.

Mr. J. G. Bellak, Crease Road, Budd Lake, New Jersey 07828 would like seeds or live specimens of Carline Thistle.

Mr. Fred C. Mather, 10 Cumberland Street, Brunswick, Maine 04011 would like to purchase copies of these old books: "Men I Have Fished With" (Fred Mather), and "The Harper's Ferry Guns."

Mrs. Julius Snyder, 6930 Minoa Road, RD 2, East Syracuse, New York 13057 would like to buy a book of songs sung 70 years ago . . . such as "Listen To The Mockingbird" and "Do You Remember Sweet Alice, Ben Bolt."

Mr. & Mrs. Everett A. Willard, 15 Brown Street, Montpelier, Vermont 05602 would like to buy a copy of the song, "The World Is Wrapped In Silence."

Miss Hazel Croscutt, Clymer, New York 14724 would like a copy of Mace's American History Book which was used in the upper grades in the 1920's.

Mrs. Wallace Thrall, McIndoe Falls, Vermont 05050 would like

an American Home Pattern Number 1272 on how to re-cane a chair.

Mr. Howard Clinch, Jr., 3558 Gifford Road, Vernon Center, New York 13477 would like to swap postmarks.

Mr. Eddie Pepper, Haywire Ranch, Budd Road, Woodbourne, New York 12788 would like to purchase an old-fashioned, horse-drawn surrey or carriage with three seats.

Mr. E. L. Clark of Danbury, New Hampshire 03230 would like to know where he can get a Bible Birthday Book . . . one side of the page has lines of the scriptures on it and the other has room for names and birth dates.

Mr. Ralph Tanner, RD 2, Elmira, New York 14901 would like copies of the following books by Ed Eastman which are now out of print: "The Trouble Maker"; "These Changing Times"; "No Drums";

Mrs. Pearl Wright, R.D. 4, Cortland, New York 13045 would like information as to the whereabouts of a Packer Bible left by Minnie Packer Evans to Preston Methodist Church, dedicated March 2, 1947.

Lew E. Harvey, Marathon, New York 13803 would like to locate the graves of his maternal grandparents, Hiram Gould Meeker and Helen Rowland Meeker. They are probably in Otsego County, but possibly in Chenango County.

Where can the song "Does the Spearmint Lose Its Flavor on the Bedpost Overnight" be found, and the poem that has the following lines, "The old, old lady with the crippled(?) knee, and the little boy who was only half past three." Any information will be appreciated by H. I. Laughlin, 328 Electric Avenue, Lewistown, Pennsylvania 17044.

Help is wanted in locating a parts manual for a Model 11 Rototiller. Write to William F. Miller, 21 Thadford Street, East Northport, New York 11731.

If you know where sheet music for "Goodbye, Summer — So Long, Fall," can be obtained, write to

J. George Walters, 7303 Old State Road, Pavilion, New York 14525.

Mr. David Mortensen, RD 1, Box 95, Branchport, New York 14418 would like the words to the song "Frankie and Johnnie."

Mrs. Gladys H. Drew, 211 Third Street, Morris Park, Phillipsburg,

New Jersey 08865, would like "Elsie's Winter Trip" and "Mildred and Elsie" by Martha Finley.

Mrs. Carl Thornblad, Route 4, Lawson Road, Jamestown, New York 14701 would like a copy of "White Woman and Her Valley" by Arch Merrill.

Mrs. Arthur Dean, 73 Dean Road, Marion, New York 14505 would like a copy of "The Sunbonnet Babies" by Eulalie Osgood Grover.

Mr. Ensign Varcoc, R 1, Waymart, Pennsylvania 18472 would like a "Morning Glory" horn for an old Edison phonograph.

If anyone has records by Jane Froman, write to Arthur W. Fitzgerald, 106-A London Road, Concord, New Hampshire 03301. Mr. Fitzgerald is also trying to find a source of boiled cider.

F. Raymond Heuges, 1704 Philadelphia National Bank Building, Broad & Chestnut Streets, Philadelphia, Pennsylvania 19107, is interested in locating Golden Dawn or Neig Parfum Fragrant roses.

Frederick R. Bowes, 409 South High Street, Mechanicsburg, Pennsylvania 17055 is trying to locate a copy of the book "Muller Hill," authored by Harriet Daniels, which contains a picture of the Muller log house.

Family Circle's Reducing Diet Guide, by Dr. Norman Jolliffe, is being looked for by Mrs. Ruth Moran, R.D. 1, Box 122, Vandergrift, Pennsylvania 15690.

Many years ago a poem entitled "The Bar" written by a prisoner in Sing Sing Prison was read over the radio. Henry J. Riordan, 114½ North Anderson Street, Morganton, North Carolina 28655 would like to obtain the words or a copy of this poem.

Robert H. Mann, Jeffersonville, New York 12748 would like to locate some poetry written by Helen Hunt Jackson, which described the different months of the year.

Books, motor manuals, or any information on the Mackcar Truck built in the 1920's and 1930's is desired by Floyd Rogers, R.F.D. #2, Windsor, Vermont 05089.

Mrs. Alice M. Oakes, 3078½ Lake Street, Horseheads, New York 14845, would like a copy of Mr. E. R. Eastman's book "The Destroyers."

Sheet music for "By the Light of the Silvery Moon" is desired by Mrs. William E. Fellows, Box 32, 128 Grand Street, Altamont, New York 12009.

Mrs. Tessie Rogers, R. 1 B 220, Oxford, New Jersey 07863 would like to find out a little about the history and value of a Chas. P. Bowlby 86-key Princess grand up-right organ which she has.

Raymond Giehrer, 1848 Fair Avenue, Honesdale, Pennsylvania 18431, has been trying to locate the book "Pennsylvania in the Revolution," 1775-1783, volume II, edited by John Blair Linn, William H. Egle, M.D., Harrisburg, Pennsylvania.

W. H. Rawlings, R.D. 4, Rome, New York 13440 would like to obtain one of the Lionel trains sold originally either by his father or grandfather, John Rawlings. They sold the trains for Tom Taylor Sporting Goods of Scranton, Pennsylvania.

Now that everybody is coming over to our slide rail suspension... here's a few more things they should do.

Arctic's new, higher-density foam cushions. It costs us more, but we care about you. All of you.

Arctic's new automatic shut-off linkage. If the throttle linkage sticks, it stops the engine automatically. Right now!

Arctic's new 4-way adjustable headlight. Three times as good as a 2-way adjustable headlight. (Okay then, twice as good!)

Arctic's low, forward-mounted engine for balanced, stable handling. And this year it's completely enclosed. That's quieter, safer. That's good.

Arctic's new v-shaped belly pan. A severe setback for deep snow that tries to stick it to you.

Arctic's new plug-in terminal board for add-on accessories. (Other machines just might ignore this, figuring everybody's got a friend who's an electrician.)

440

Panther

Arctic's riveted aluminum chassis, to absorb stress and strain. Some of the others still have a welded chassis. Welds break. That's bad.

Arctic's new farther-forward foot rests, because you've got longer legs than we thought you had.

Arctic's new wider foot rails. That means a more comfortable place to plant your feet—safer, too.

Arctic's new, hot-rolled steel cleats that wear and wear and wear. There's a new staggered 2/3 cleat design that gives the Cat track extra life.

Arctic's new internal drive transfers power directly to track. Direct equals quieter.

Arctic's new, improved, single-leaf tapered springs. Better flex, better ride. Next year a lot of 'em will come over to this little beauty.

the Cat
They're all comin' over

BHL



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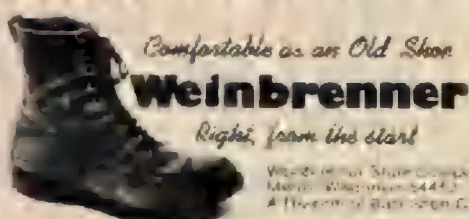
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BRIDGEPORT
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BROOKLYN
Thomas' Shoes
JACKSON A. S. H. Duffin
Mack's Shoe Store
BUFFALO
Various Shoe Store
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Calcedonia Community Outlets
CANTON
Nelson Shoe Store, Inc.
CLINTON
Clinton Shoe Center
COPLAND
Copeland & S. H.
COSTI AND
Savage Shoe Co.
DANVILLE
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EASTON
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ITHACA
Savage Brothers
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Annie's Shoe Store
KINGSTON
H. T. & S. S.
LACAWANNA
J. A. & S. S.
LACE LAZERS
The Village Store
LITTLE FALLS
A. S. Shoe Service
LOCUST
Perry Shoe Store
LYONS
Perry Shoe Store
MADISON
Manning Trading Post
MAMARONECK
Foster's Department Store

Dollar Guide



DAIRYLEA, NEDCO AND YANKEE MILK COOPERATIVES have taken a historic step toward closer cooperation. Dairylea and Nedco are formally moving toward unification of their assembly, handling, transport, manufacture and sale of Federal Order 2 milk handled by these two organizations. Dairylea and Yankee have established an affiliation involving 900 Dairylea members shipping milk to New England markets.

Cooperatives that are members of the New York-New England Dairy Cooperative Coordinating Committee are working toward a common marketing agency that would coordinate the handling of 80 percent of milk produced in the federal order areas of the region.

BOSTON REGIONAL MARKET reports that blended price of \$6.86/cwt. for milk in August is highest basic price ever paid in that market. Class I utilization in the August pool was 58.3 percent.

DIETHYLSTILBESTROL (DES) is banned in animal feeds as of January 1, 1973. DES implants are still legal, but they too are under investigation ... and might be banned in future.

Alternatives to DES include: MGA (for heifers), Synovex, Rapigain, Ralgro, and Zymaferm.

EGG PRICES for twelve months beginning October 1, 1972, are expected to average 40 to 41 cents per dozen ... 42 cents for January-March 1973.

EMERGENCY LOANS are being made by the Farmers Home Administration to qualified farmers who suffered losses from Hurricane Agnes. Deadline for application is June 30, 1973.

SOYBEAN PROCESSING for dairy feed will soon be done by an extruder machine at mill of Bean Brothers near Ovid, New York. Beans are pushed through several openings, each one smaller than the one before ... and heat generated by friction cooks product at 255 degrees.

Resulting feed has all the oil left in it, is highly digestible. High cost of supplemental protein has led dairymen to eye possibility of using home-grown (or bulk-purchased) soybeans.

POWER-OFF ALARMS for poultry houses are helpful, but are not enough. Ventilation fans can cut out because of a blown fuse, faulty circuit, or low voltage ... none of which are "reported" by a power-off alarm. Ventilation is most critical need in windowless house, but light, water and feed are also essential.

Cornell Bulletin No. 1145, entitled "Emergency Warning Systems for Poultry Houses," is available for 10 cents per copy from: Mailing Room, Building 7, Research Park, Cornell University, Ithaca, New York 14850.

EMERGENCY GRAIN for winter feeding is available from government stockpiles in many counties of Northeast. Check with your ASCS office for details.

LIQUID PROTEIN SUPPLEMENT is good insurance for a feeding season featuring poor-quality roughage. Protein content is low in much of hay made in Northeast in 1972.

MEAT IMPORTS into U.S. for calendar 1972 are estimated at 1,275 million pounds ... 15 percent above 1971.

RURAL DEVELOPMENT ACT gives USDA responsibility for coordinating various government programs for rural development. Authorizes government-guaranteed FHA operating loan limit boost to \$50,000 ... more cost-sharing practices authorized for pollution control measures ... boost in sewer and water grants for rural communities.

SOIL TESTS (44,000 of 'em) in Maryland during 1971 show 42 percent tested a pH of 6.0 or less ... better than the 65 percent in that category in 1959, but still indicative of the need for lime.



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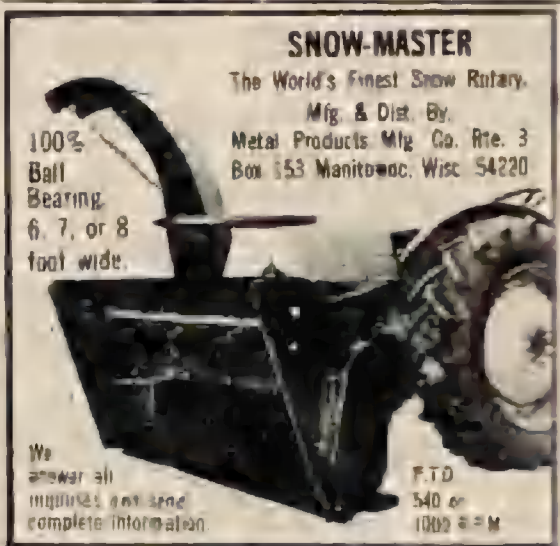
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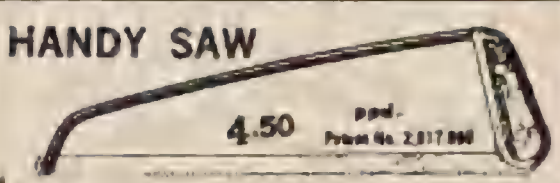
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Proven, dependable assurance of continuous electric supply. Keeps automated feeding, other operations running. Could pay for itself in one blackout.
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Dr. Naylor's UDDER BALM
You will like this modern, most effective medication for Sore Teats, Tender Udders, More soothing, more soothing, more penetrating to relieve soreness, swelling, inflammation, and other ailments. H. W. NAYLOR CO., MORRIS T. N. Y.

American Agriculturist, November, 1972

Food For The Spirit



by Robert L. Clingan

A minister was calling on a member of his parish who was in need of the comfort of the scriptures. He offered to read a portion of the Bible to her, and asked what he was to read. She requested the 23rd Psalm, but wanted it read in a special way. She said, "When you come to the part that says 'though I walk through the valley of the shadow of death,' please emphasize 'through.'"

The entire 23rd Psalm has been called the "Shepherd's Psalm." Although it is spiritual, and has an application to each person's experience, it is based on the experience of a shepherd and his flocks some 1,500 years ago in Palestine.

The sheep were pastured in a different area in winter than in summer, and had to move from one area to another twice a year. The two grazing areas were separated by a mountainous region through which the flocks of sheep had to pass.

This mountainous area was filled with caves which sheltered wild animals that threatened the life and safety of the sheep. It had thickets in which straying sheep could be lost, and false paths that led to death over a sharp precipice. It was called the "valley of the shadow of death."

Life too, has its "valley of the shadow of death." The Bible does not promise that we will be spared life's difficult experiences, regardless of the level of our faith or the quality of our lives. What the Bible does promise are the resources of God that can be tapped by exercising faith.

The Psalmist says, "Though I walk through the valley of the shadow of death, I will fear no evil." Then he tells why he fears no evil . . . "because Thou art with me." He gives the most important reason first, as is common in Hebrew writing. Second, he speaks of the resources of God that help him, just as the shepherd helps his threatened sheep . . . "Thy rod and Thy staff, they comfort me."

Rescue

The staff was the traditional shepherd's crook, by which a sheep could be rescued from the thicket into which it had wandered, or pulled from the edge of a precipice where it could fall to its death. The rod was a club the shepherd could use to fend off a predatory animal. The Psalmist is saying here that God, the shepherd, has ways of helping us beyond our knowing.

The most important reason why the sheep feared no evil as they passed through the valley of the shadow of death was because the shepherd went with them. It is because God goes through all of the dark places of life with us that we too, need fear no evil.

The abiding presence of the Almighty is our assurance that we will not be destroyed, but that we will go through this valley, with its many perils, and come safely out on the other side.

Don't push your snow problems aside— blow them away with a



Rotary Snow Plow

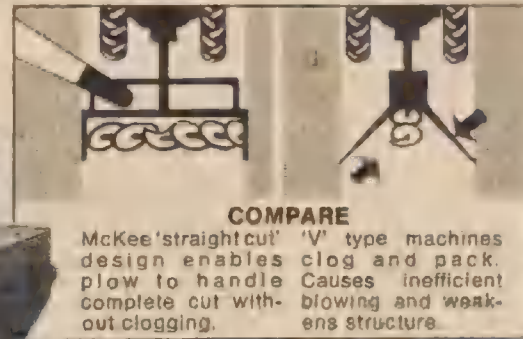
Plowing snow aside only creates the bigger problem of drifting the next time it snows.

With a McKee Rotary Snow Plow you blow snow away . . . way out of the way. Your plowing job lasts longer because drifting is virtually eliminated and the tough, two stage, spiral auger and blower fan design eliminates clogging and eventual weakening of stress points normally found in 'V' type blowers.

McKee offers the most comprehensive range of two stage, tractor-mounted Rotary Snow Plows available in North America and they're backed by an extensive Dealer-Distributor organization with parts and service whenever and wherever required.



The Econo-plow. 3 point hitch rear mounted two stage plow for use with tractors up to 40 hp.



COMPARE

McKee's 'straight cut' 'V' type machines design enables clog and pack. plow to handle Causes inefficient complete cut with- blowing and weak- out clogging. ens structure.

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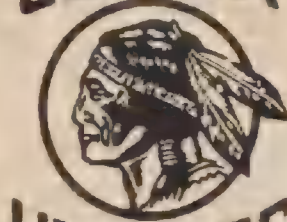
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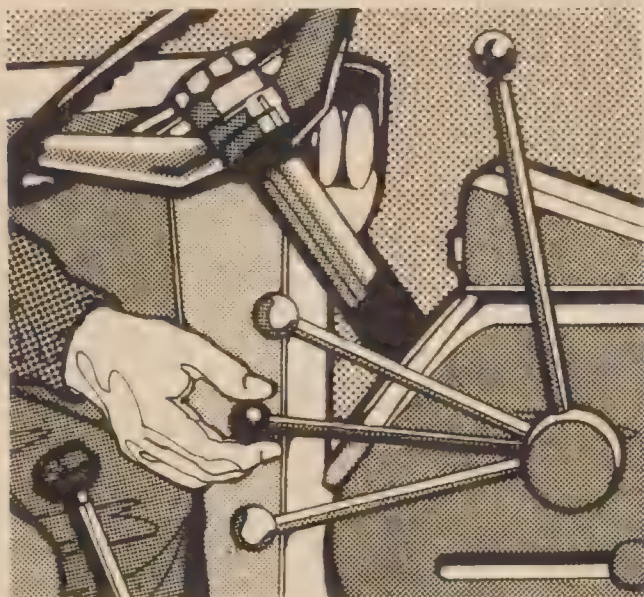
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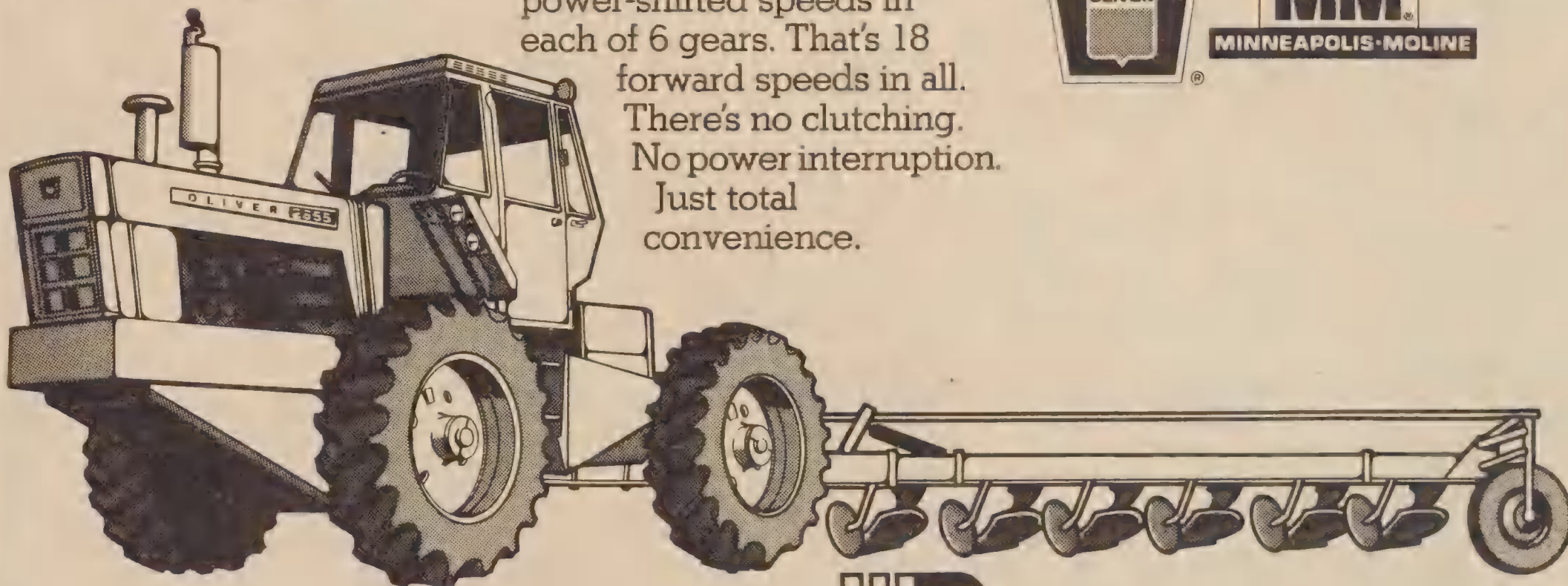
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WHITE FARM EQUIPMENT COMPANY
CHARLES CITY, IOWA



The new White Farm Equipment Company 508 semi-mounted plow is offered in three and four-bottom versions making 16- and 18-inch cuts. It also features big trash clearances, sturdy frame (6 by 6 inches), three popular beam-trip choices, and many options. Cutting width is quickly adjustable to match power requirements and soil conditions from spring to fall. The 508 also has category II hitch and steerable tail wheel with hydraulic lift to make short turns and neat, square headlands.

Hesston Corporation began in the quiet farming community of Hesston, Kansas in 1947. There was a need to find a way to eliminate the hours lost while waiting for a crew to unload the bins of self-propelled combines.

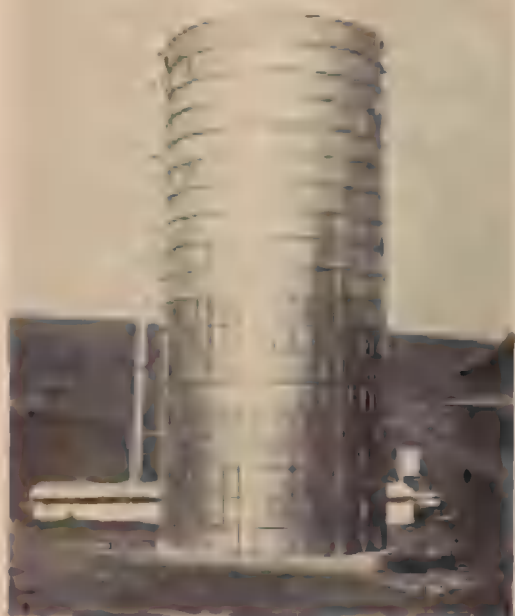
Since then, over 100 new products have been pioneered and produced by Hesston. Many have become standard equipment on today's harvesting machinery produced by major manufacturers.

The Corporation's net sales in 1971 were \$41,807,859. The company looks toward a bright future as it continues to produce specialized farm equipment that will enable a diminishing farm population to feed a growing nation and world.

Clayton & Lambert Manufacturing Co., Buckner, Kentucky 40010, is using stainless steel on both interior and exterior walls and roof panels on the new Silver Shield and Herd King silos and grain bins.

Clayton & Lambert hails its new construction as a real breakthrough in corrosion resistant buildings, "inside and out."

The company is so satisfied with the new metal that it is using the material for building above-ground manure storage tanks on an experimental basis.



We were quite close to several glaciers on the Glacier Bay National Monument boat trip. The rivers of ice are advancing daily, but melting faster than they advance, so actually they are receding.

Visiting

with Home Editor Augusta Chapman

A Wonderful Vacation

As I keep writing each month in our tour stories, it's impossible to tell you all the interesting places you will visit and the exciting things you will do on any AMERICAN AGRICULTURIST-TRAVEL Service Bureau tour! And so it was with our Alaska trip this summer — I can mention only a few highlights of the visit to our 49th State.

First, I will never forget the beauty of Mount Rainier the Sunday afternoon we arrived in Seattle. It was a wonderfully clear day, and on our city tour, the mountain loomed in the distance, snow-covered and misty-white in the late afternoon sun.

Perhaps the reason Rainier is so impressive is that being an extinct volcano, there are no smaller mountains or hills nearby to detract from its grandeur. Mount Rainier rises high into the sky, alone in all its majestic, massive splendor!

For me, the second highlight was the Glacier Bay National Monument boat trip, taken while we were in Juneau. Once the fog lifted, we enjoyed spectacular scenery — fjords, mountains, icebergs, glaciers and wild life — all the way. The boat went quite close to Muir and Riggs Glaciers, and hundreds of seals sunned themselves on the ice floes in the bay. I believe this cruise gave me a better idea of Alaska's wild beauty than anything else we saw.

We were on the Inside Passage only one day, the Lynn Canal portion between Juneau and Skagway. This is reported to be one of the loveliest parts of the Inside Passage, and that is not hard to believe. It was a delightful day — hope sometime I can take the entire Inside Passage cruise, from Vancouver to Skagway.

Mendenhall Glacier near Juneau and Portage Glacier outside Anchorage were memorable sights. The White Pass & Yukon narrow gauge train ride was scenic and interesting, with the Trail of '98 still visible at several points along the way. It was fun riding the chairlift up Mt. Alye-

ska, and the view was truly breathtaking as we'd been promised!

Our greatest disappointment was not seeing Mt. McKinley. There were several days when we should have been able to see it, but clouds hung so low that we couldn't even tell the mountain was there. In Anchorage, our bus driver told us he made eight trips to the National Park before he saw Mt. McKinley, and that made us feel only slightly better.

Alaska, Still A Frontier

When you go to Alaska, don't expect to always find the luxurious accommodations we have in the "lower 48." Alaska is truly our last frontier, and some things are still not as modern there as you might expect. The larger cities are modern in every respect, and the Captain Cook Hotel in Anchorage, for in-

stance, is as fine a hotel as anyone could desire. In the smaller places, such is not always the case.

My first realization of this came our first day in Alaska. Knowing that Travel Service Bureau takes pride in always using first class hotels, I couldn't believe from my first glimpse of the Sitka Hotel that we were going to stay there! And it was a far cry from the Waldorf, but it was Sitka's best, I'm sure, and entirely comfortable and adequate.

Maybe it's also the frontier spirit that keeps bars in Alaska open until five in the morning. There were a few nights when our sleep was rather sketchy! All in all, it was a wonderful trip with superb scenery and many, many interesting experiences. I hope many of you will go to Alaska with us some year soon.

Our trip across the Arctic Circle to Kotzebue and Nome was quite an experience! The pilot obligingly dropped the plane a few feet, rolling it ever so slightly, in order for us to feel the Arctic "bump." Again, we were disappointed in not getting a glimpse of Siberia.

I'm sure there's no danger of anyone in Kotzebue reading this column, so guess it's safe to say that was the most God-forsaken place I've ever seen! How in the world the Eskimos survive the brutal winters in those shacks, I can't imagine.

Our guide told us they have a serious drinking problem among the young people, which is easy to understand. Finally, they are trying to get a youth center built, so they'll have a chance for wholesome recreation. Colonel Sanders has gone north to Kotzebue; the sign on the building proudly proclaims it's the smallest "Finger Lickin' Good" chicken place in the world!

AA Recipe Contest

We invite you to enter our Casserole Contest. Send in your favorite main-dish casserole recipe — maybe you'll win a prize and have your recipe printed in AMERICAN AGRICULTURIST. Recipes will be judged for originality, practical qualities (no very hard-to-find ingredients, but do not hesitate to send in casserole recipes suitable to serve guests), and of course for excellence of the finished product.

Here are the rules —

1. Recipes must be typed double space or clearly written on one side of paper only. Print full name and address on upper right hand corner of paper.

2. Give complete directions for making casserole, including oven temperature, time of baking and approximate number it will serve. Give all measurements in level cups, tablespoons, etc. (no "butter the size of an egg," "heaping teaspoon," etc.).

3. Include a short story telling about origin of recipe submitted (not more than 100 words).

4. All recipes must be postmarked before December 1, 1972. In case of duplicate recipes, the one with earlier postmark will be considered.

5. Judges' decisions will be final; all recipes become property of AMERICAN AGRICULTURIST; we reserve right to adjust and edit all recipes.

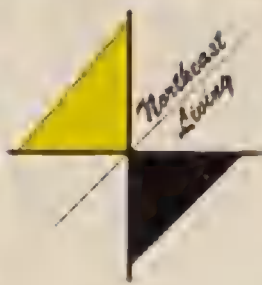
Prizes will be as follows — 1st, \$25.00; 2nd, \$10.00; 3rd, \$5.00. We will also pay \$2.00 for all additional recipes printed in AMERICAN AGRICULTURIST.

Don't put it off; send your recipe today to: Casserole Contest, c/o Home Editor Augusta Chapman, American Agriculturist, P. O. Box 370, Ithaca, New York 14850.

Your Holiday Bird

by Alberto Shackelton

A **GOLDEN BROWN** beautifully roasted bird with appropriate trimmings and accompaniments always highlights any winter holiday meal. Traditional turkey reigns supreme for many families at Thanksgiving time, but do plan to feature one of the other available "feathered friends" for a family gathering at some time during the holiday season.



A goose cooked to perfection, with its marvelous flavor and juicy moistness of dark meat throughout, will add a gourmet's holiday touch, plus truly good eating. Other choices could include roast capon, a pair of roasted ducklings (or roasting chickens, of course), and for smaller dinners, the individual-serving Rock Cornish hens with a special stuffing.

Featured below are up-to-date directions from the National Goose Council for preparing roast goose. Also included are directions for preparing the traditional roast turkey.

STUFFED ROAST GOOSE

You will find geese available in sizes ranging from 6 to 14 pounds, with most of them in the 8 to 10 pound range. Most are processed, packaged and frozen for greater convenience.

Today's geese are quite different from those of several years ago. They are marketed at a relatively young age to assure a tender product. Also, they are meatier and have less fat — the fine layer present beneath the skin acts as a "built-in baster" while the goose cooks. Allow $\frac{1}{2}$ to $\frac{3}{4}$ pound purchased frozen weight for a 3-ounce serving, and don't forget to allow more for hearty appetites.

Thawing

Leave goose in its original, unopened wrap for any of the following methods (refrigerate when thawed and use promptly).

To thaw at room temperature, place wrapped goose in a heavy brown paper bag, close bag securely or wrap in 2 or 3 layers of news-

paper. Place on a tray and thaw 6 to 10 hours for a 6-10 pound goose, or 10 to 12 hours for 10-14 pound goose.

To thaw in cold water, place goose in sink with cold or cool water (never hot or warm), changing water often to hasten thawing. It will take 4 to 5 hours for a 6-10 pound goose, or 5 to 6 hours for a 10-14 pound bird.

To thaw in refrigerator, place goose on tray and keep in refrigerator 1 to 1½ days for the smaller bird, or 1½ to 2 days for a larger goose.

Remove neck and giblets from the completely thawed goose, cook promptly and refrigerate until ready to use in giblet gravy. Remove excess fat from body cavity and neck skin, reserving for future use. Rinse bird and drain. Either remove wings at second joint (cook end pieces with giblets) or tie flatly against body with cord around each wing and across back.

Stuffing and Roasting

Stuff goose just before placing in oven. A variety of stuffings may be used — a tart stuffing like sauerkraut or a bread stuffing using cranberries, apples or citrus fruit, or the goose may be roasted unstuffed and the stuffing baked separately in a casserole.

To stuff, fill neck and body cavity loosely. Fasten neck skin to back with skewers, tie legs together and tuck in band of skin at tail if present (no trussing necessary).

A two-phase oven temperature, removal of rendered fat, and a meat thermometer assure perfect roasting. Place stuffed goose, breast side up, on a rack in a roasting pan; insert thermometer deep into inside thigh muscle. Do not grease skin, do not add water, and roast uncovered in a preheated hot oven (400°) for 45 to 60 minutes (depending on size of bird — see chart below). Basting is unnecessary because of the fat layer beneath skin.

During roasting, spoon or siphon off accumulated fat (reserving for future use) at half-hour intervals, so fat does not brown excessively. After roasting 45 to 60 minutes, reduce oven temperature to 325° and



A golden roast goose is an elegant holiday bird and will make your Thanksgiving dinner an occasion to remember.
Photo: National Goose Council



These beautiful Rock Cornish hens are the large size mentioned. They will be cut in half to serve six people.
Photo: Campbell Soup Company

continue roasting as indicated on table, or until thermometer registers 180° to 185° F.

Check stuffing temperature also; it should register 165°. If a thermometer is not used, press meaty part of leg between protected fingers — it should feel soft. Also, prick thigh with a fork — juices running out should be beige, not pink.

FRUIT STUFFING

- $\frac{1}{2}$ cup cut-up celery
- $\frac{1}{2}$ cup chopped onion
- $\frac{1}{4}$ cup fat
- 6 cups day-old bread cubes
- 2 cups chopped apples
- 1 cup chopped dried apricots
- 1 teaspoon salt
- $\frac{1}{2}$ teaspoon pepper
- $\frac{1}{2}$ teaspoon thyme

Cook celery and onions in fat until tender and pour over bread cubes. Add remaining ingredients and toss lightly to mix well. Makes enough stuffing for 6-10 pound goose; an extra pan of stuffing may be baked separately.

ROAST STUFFED TURKEY

Choose the kind and size of turkey to meet your needs. An 8 to 12-pound bird will furnish 10 to 12 servings; a 12 to 16 pounder will serve 20 to 32 persons. If your choice happens to be a frozen stuffed turkey, do not thaw before cooking and follow accurately the cooking directions on package.

Temperature of stuffing itself should reach 165°. Test by inserting thermometer in body cavity for

about 5 minutes after turkey comes from oven. If reading is not at least 165°, return bird to oven until proper temperature is reached.

Note: Do not attempt to stuff your own turkey and freeze it. Home freezers take too long to freeze through to the stuffing, and spoilage is possible. Keep frozen stuffed turkey in freezer until ready for use.

Use same methods for thawing turkey as for goose, increasing time for larger birds if necessary.

Stuffing and Roasting

Stuff turkey just before placing in oven preheated to 325°. First stuff neck end lightly and skewer neck skin to back. (This is a good place for a more highly seasoned stuffing desired by some eaters.) Tuck wing tips behind shoulder joints.

Rub body cavity with salt and lightly stuff by cupfuls, then shake drumsticks slightly to insure light stuffing to allow room for expansion during roasting. For tucking or trussing, push tail under band of skin into body cavity. Tuck each leg under band of skin or tie drumsticks to tail.

Place stuffed bird, breast side up, on a rack in a shallow roasting pan, brush lightly with melted fat or salad oil. Insert thermometer, if used, into thickest part of inside thigh muscle, being careful not to hit bone.

Cover turkey with a loose cap of foil, so it will not touch top and sides of turkey; press foil lightly

(Continued on page 33)

APPROXIMATE ROASTING TIMETABLE* (Stuffed Whole Goose)

Ready-to-Cook Weight Pounds	Time at 400° F.	PLUS Time at 325° F. (Hours)	Total Roasting Time
6 to 8	45 minutes	1 to 1½	1¼ to 2¼
8 to 10	1 hour	1½ to 2	2½ to 3
10 to 12	1 hour	2 to 2½	3 to 3½
12 to 14	1 hour	2½ to 3¼	3½ to 3¾

*Times will be less for unstuffed geese.

New option on '73 Jeep trucks, Quadra-Trac, is a unique full-time four-wheel-drive system.

Right: GMC has made extensive design changes to improve durability, serviceability, comfort, appearance, riding and handling in their '73 line of pickups.



Toyota's half-ton pickup has a 97-hp engine. Front coil-spring suspension has hydraulic telescopic shock and anti-sway bar.

Take a look at the 1973 pickups. Many major design changes have been made—manufacturers' response to consumer demands for more versatile, yet rugged, trucks. More durable than ever, these new models offer greater passenger comfort. You'll find larger wheelbases, extended pickup beds, behind-seat storage and many mechanical improvements. Most noticeable, of course, are styling innovations—inside and out. For camping or on-farm chores, you'll like what you see.



Preview '73 TRUCKS



Right: International's Loadstar offers an optional tilt-up hood and fender assembly for easy servicing. A 5/16" frame is standard on most trucks.

Left: Longer wheelbase, wide tracks, restyled sheet metal and a longer cab with behind-seat storage give Ford pickups greater versatility and comfort.



Chevrolet has made many improvements to the pickup power train and chassis components, particularly the suspension.

New entry in the Dodge pickup line-up is the Club Cab. It offers 18" more interior cargo room than a standard cab.

The 92-hp Datsun pickup features improved driving position, flow-through ventilation, power-assisted brakes and 6' bed.



DO YOU HAVE . . .

Directions for making flowers out of milkweed "floss"? Mrs. Winifred Hill, Ellenton, Pa. 17732, remembers they were shaped like pompons and dyed various colors.

A novelty pencil sharpener shaped like the Baker's chocolate lady? Mrs. Marlynn Olson, 30 Washington St., Randolph, N. Y. 14772, would very much like to have one for her collection of writing instruments and related items.

The recipe for an Apple Bowl Cake? Mrs. Earle Peck, Box 423, Craryville, N. Y. 12521, says it was in the "Rural New Yorker" 15 or 20 years ago. Layers of sponge cake,

applesauce and whipped cream were molded in a bowl.

Pieces of Oneida Community silverware, "Queen Bess" pattern, you do not wish to keep? If so, please contact Mrs. Earle E. Butterfield, R. D. 2, Bethel, Vermont 05032.

Recipes for corn cob jelly and syrup? Mrs. Earl Kilbourn, R. D. 1, Holland Patent, N. Y. 13354, sends this request.

Information on how to use antique candy molds and where the chocolate is available? Mrs. William Newcomb, 5676 Broadway, Lancaster, N. Y. 14086, would like help.

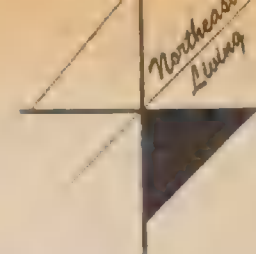
Any idea where Mrs. Maurice Chase, R. D. 1, Orford, N. H. 03777, can find clear plastic boxes with covers, about 4½ or 5 inches square

and 3½ or 4 inches deep?

Information as to where bales of remnants for bed comforters can be obtained? Mrs. Sybel Borgkvist, R. D. 1, Kittery, Maine 03904, used to get them from a man in Bridgeport, Connecticut, but they are no longer available from that source.

A recipe for "salt" frosting? Mrs. Warren Taylor, R. D. 1, Rutland, Vermont 05701, says her mother used to make it.

Amber glass dishes, "Trojan" pattern, you do not want to keep? Mrs. Florice Rowe, Box 304, Norridge-wock, Maine 04957, says they are about 45 years old, and she would like to get some.



NOVEMBER DAY

by Inez George Gridley

This tattered day is a hand-me-down,
Some leftover rags of October glory.
The scattered leaves are rusty and brown,
Bereft of brightness, disheveled and sorry.

This shabby day, like a poor relation,
Worried by wind that flurries and skirts,
Will slip away in humiliation
As winter sweeps in with ermine and pearls!

Holiday Bird

(Continued from page 31)

at drumstick and breast ends. Do not add water, do not cover, and basting is unnecessary. Place in oven and roast according to the following approximate times for purchased ready-to-cook weights: 3½ to 4 hours for 6-8 pound bird; 4 to 4½ hours for 9-12 pounder; 4½ to 5½ hours for 12-16 pounds; 5½ to 6½ hours for 16-20 pound bird; 6½ to 7½ hours for 20-24 pounder.

About 20 to 30 minutes before suggested roasting time is up, test bird for doneness. Thermometer should register 185°. Thickest part of drumstick will feel soft, and will move up and down easily, twisting easily in socket. Remove from oven and let stand 15 to 20 minutes before carving.

ROAST ROCK CORNISH HENS

- 4 1 to 1¼ pound Rock Cornish hens
- 1 6-oz. package seasoned long grain and wild rice, cooked as package directs
- 1 small can sliced button mushrooms, sauteed
- ½ cup thinly slivered toasted almonds
- 1 to 2 tablespoons chopped parsley, if desired

Thaw hens overnight in refrigerator. Remove giblets; cook, chop and add to stuffing if desired, or use later. Rinse birds and pat dry. Combine together lightly the cooked rice, mushrooms, almonds and parsley if used.

Stuff each bird lightly with stuffing (bake any remaining stuffing in casserole), fasten opening with skewers and lace closed with string. Tuck wing tips between shoulders. Place breast side up on rack in shallow roasting pan, leaving several inches between each bird.

Cover loosely with foil. Do not add water. Roast in a preheated hot oven (400°) for 30 minutes. Remove foil and continue roasting for 30 minutes or more, until tender and joints move easily. During this last roasting period, baste occasionally with melted butter or a glaze made with a mixture of ¼ cup canned condensed consommé and ¼ cup light corn sirup.

Remove birds from oven and arrange on beds of watercress or parsley on attractive platter and garnish with grape clusters, apricots (canned whole or halves, well drained), or spiced crabapples. Serves 4.

Note: A single larger 2-pound roasted hen may be split for two servings.

American Agriculturist, November, 1972



Come on, let's bake beautiful breads.

This extraordinary breadbasket and the rolls in it aren't much harder to make than simple dinner rolls.

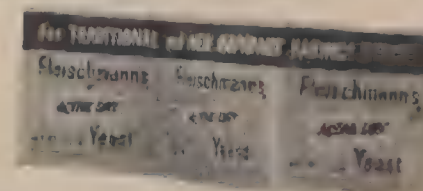
Just break open a package of Fleischmann's Yeast and mix up a yeast dough using your own dinner roll recipe, or one from the new *Fleischmann's Bake-it-Easy Yeast Book*.

Then, feel free to experiment. And bake something beautiful. Shape, twist, braid and try new fillings and toppings. Improvising can make yeast baking fun.

And once you get the feel of it, you'll probably have lots of your own ideas.

You'll find easy instructions for shaping the beautiful breadbasket and lots more in *Fleischmann's Bake-it-Easy Yeast Book*. And what a mouthwatering serving and conversation piece it is.

For this bookful of creative baking ideas and delicious recipes, send 50¢ to: Fleischmann's Yeast, Box 1218, Elm City, North Carolina 27882. Allow 4-6 wks. delivery. No orders accepted without zip code. Offer good only in U.S.A. while supply lasts. Void where prohibited or restricted.



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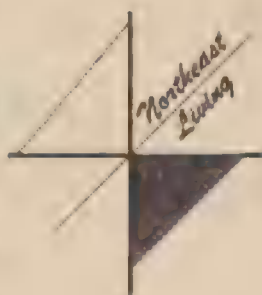
34

American Agriculturist, November, 1972

Let's Go!

by Lois O'Connor

As November dims the colorful roadside swatches of goldenrod and purple aster and the sparkle of "October's bright blue weather" gives way to snow-minded winds, the "Let's Go" urge usually tapers off. Unless you are a winter sports buff, traveling around by car when roads become snow-covered and icy holds little enticement.



It is the time, however, to make notes of places to go and things to see when once again Spring Fever strikes and you want to shout, "Let's Go!" Keep near at hand a folder into which you can put clippings or notes on things that attract you.

You may read about the azalea gardens in the Carolinas, new developments at Colonial Williamsburg, or about some historic house in New England, New York or Pennsylvania that has recently been restored and think, "Wouldn't that be interesting to visit." A second thought may be, "Well, I'll never be in that direction." Don't be too sure — the unexpected often happens. Clip the item and put it away in the folder.

A Valuable Possession

In just this fashion, I've had some most satisfying experiences. Being especially interested in herbs, from time to time I had clipped references to places in the Southern Highlands where mountain people bring collections of wild herbs to be sold to pharmaceutical companies for research.

Then one spring, quite unexpectedly, I found myself involved in planning a trip to Ashville, North Carolina, to visit the magnificent gardens and estate known as Biltmore. Out came the clipping folder! I could stop at Lenoir to look up one of the herb collection points with little deviation from the route to Ashville.

Without that magic folder, I would have missed seeing something out of the ordinary. There were enormous bales of chickweed (the very same that sometimes plagues our gardens), bundles of indigo root, and quantities of the sticky buds of the Balm of Gilead tree spread on the floor to dry. Among the many other roots, barks, leaves and blossoms were black cohosh roots, yellow jasmine, cherry and slippery elm bark and ginseng.

I kept wondering what new medicine or substance to benefit our lives might eventually be derived from those brown, dried bits of nature! As a herb-lover, all of this was a highlight for me. For someone else, it might be the greatest possible bore. So keep a folder that suits your tastes. Aside from the major, well-publicized attractions, there are other hundreds of unusual and delightful places to visit. Your notes will help you find them.

Consider Family Interests

Who goes along on a jaunt often determines where stops will be made,

so the folder probably will have suggestions that would please various members of your family. For example, the Baseball Hall of Fame in Cooperstown, New York, is well-known, but also note that the National Road Racing Hall of Fame is being established in Watkins Glen, New York, home of the famous Grand Prix of the United States.

Another fascinating place is the Glenn H. Curtiss Museum in Hammondsport, New York. It is crammed with actual early aircraft and many rare items pertaining to the beginnings of aviation in this country.

In a full afternoon's time, visits can be made to both Hammond Castle on the Magnolia shore of Gloucester, Massachusetts, and to nearby Beauport, a house that "depicts Early America as seen through the eyes of an artist..."

Hammond Castle, a treasure-house of medieval art and sculpture, boasts the largest privately-owned organ in the world. It has more than 10,000 pipes, and it is a spine-tingling experience to hear its music swell through the Great Hall of cathedral proportions. Beauport is far different but equally impressive, for it was the home of Henry Davis Sleeper, one of America's great interior decorators.

State and national parks and the increasing number of conservation education centers provide quite different interest areas. At Morristown, New Jersey, the Morristown National Historical Park offers a diversity of attractions. Here again, my notes led me to one unit of the park three miles from Morristown — Jockey Hollow which was a campsite of the Continental Army in 1779-80. The area is a wildlife sanctuary and includes a wildflower trail.

Also in Jockey Hollow is the Henry Wick House, a restored 18th Century farmhouse that was used as quarters by Major General Arthur St. Clair. The house, surrounding buildings and garden reflect the life of a relatively prosperous farmer during the Revolutionary period.

The location of the restored kitchen garden has been verified by a map drawn in 1786 by Israel Ludlow. Here were originally planted the more delicate vegetables and a quantity and variety of herbs, for herbs provided not only food and seasonings but also served as the family's source of medicine.

Among random notes in my folder are those about the Black Forest of Pennsylvania where can be found the Sweden Valley Ice Mine; Ole Bull State Park commemorating the tragic colony led by Ole Bull, the great Norwegian violinist, and the remains of the dam at Austin which some 60 years ago gave way, as an estimated 400,000,000 gallons of water in a 50-foot-high wall roared down the valley, sweeping away the villages of Austin and Costello.

Every note in my folder carries the urge to "go see." Start soon to tuck away your own notes. It's like having a "pocket full of dreams," and some are bound to come true. Let's Go!

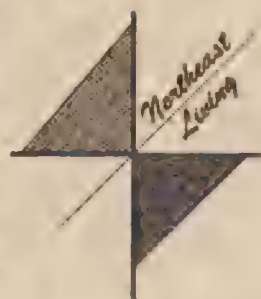


Guadalajara is perhaps the most Mexican of all Mexican cities, but is often not included in tour itineraries. It is just one of the many unusual places you will visit on our Colonial Mexico Holiday.

See a Different Mexico

Beautiful, sunny Mexico is the perfect setting for a wonderful early spring vacation, and we invite you

to join our **Colonial Mexico Holiday** from March 5 to 20. If you want to skip some of the crowded tourist spots and see the true old Mexico, still influenced



by its Spanish and Indian cultures, this is the trip for you. We feel sure you'll come home as enthusiastic as everyone who went to Mexico with us last March.

Our group will gather in Chicago and fly to Mexico City where we spend four nights. There's much to see and do here, for Mexico City is one of the world's loveliest and most exciting cities. Our sightseeing will include the famed Pink Zone shopping district, the magnificent Sports Palace, Cathedral Square, Plaza of the Three Cultures, Chapultepec Park and the Anthropology Museum.

We'll drive the length of the Paseo de la Reforma, perhaps the most beautiful boulevard in the world, and attend a performance of the Folklore Ballet in the Palace of Fine Arts. Here, we will also see the fabulous Tiffany Glass Curtain. On another day we'll visit the marvelous ruins at Teotihuacan and stop at the Shrine of Guadalupe.

Leaving Mexico City, we visit **Tepotzatlán** to see its cathedral and monastery, **San Juan del Río**, a center of onyx craftsmanship, and **Queretaro** where we still sense the strong influence of Spain. We spend the night at an old Spanish Inn in quaint

San Miguel de Allende, headquarters for many world famous artists.

Guanajuato is situated in a beautiful mountain valley. You'll enjoy strolling along the narrow streets, overhung with balconies and lantern lit at night. **Guadalajara**, perhaps the most Mexican of all Mexican cities, is responsible for mariachis, tequilla, also the fine leather and blown glass for which the country is noted.

Puerto Vallarta, made famous by the filming of "Night of the Iguana," is still a relatively unspoiled fishing village and an enjoyable place to sun and swim if you wish. Visiting **Patzcuaro**, the serenely beautiful Indian village of centuries ago, is like walking into a living page of the past. A boat trip will take us to the ancient island of **Janitzio** where fishermen use butterfly nets, as they have for hundreds of years.

In the lovely city of **Morelia** with its Old World atmosphere, we'll see the ancient aqueduct and one of the prettiest city squares to be found anywhere. The spa of **Ixtapan** is Mexico's fountain of youth. This delightful city has something to interest everyone — a luxury golf course, mineral baths, carriage rides, and many fascinating things to see.

No visit to Mexico would be complete if it skipped **Taxco**, where the colonial charm has been preserved by governmental decree. Its cobblestone streets are lined with quaint red-tiled houses and flower-covered shops. It's fun to hunt for treasures in silverware and watch the natives fashion beautiful handmade jewelry.

Cuernavaca, the last highlight of our tour, is called "City of Eternal

(Continued on page 42)

Gordon Conklin, Editor
Box 370-T
Ithaca, New York 14850

Please send me without obligation on my part, the following tour itineraries:

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American Agriculturist, November, 1972

GARDEN TALK

by George and Katy Abraham

Winterizing Mums

This has been a good year for mums, with plenty of water to "fatten" them up. Now, the question is how will they go through the winter? It is not the cold which kills mums in winter, but poor drainage or wet feet. Mums cannot take a soggy soil in winter.



If you have some choice varieties and want to bring them through, your best bet is to dig them up and line them against the foundation of your house. Pack a little soil around the roots and keep them slightly watered during the dry fall days. Or, if you have a coldframe, you might dig up the clumps and place them in it, side by side. Again, keep them slightly watered in fall.

Note: If your chrysanthemums were spindly and leafless, with just a flower or two on top, I wouldn't bother keeping them over winter. They have chrysanthemum wilt, a fungus that lives in the soil and attacks roots and stems of susceptible varieties. In late summer, the leaves on the lower part of the plant are yellow, and by fall the stems are almost devoid of leaves.

Control: Discard these susceptible varieties and grow those that are completely resistant. Your neighbor probably has some good varieties, so maybe you can swap something with him for a few clumps. Or buy some from a nurseryman who has disease-free plants. Never bother to start new plants afflicted with chrysanthemum wilt.

Giant Pumpkins Again

Which AA reader has the largest pumpkin this year? We hope you folks will write and give us your pumpkin weights, so we can pick the winner. Last spring we sent out more than 10,000 packets of sunflower and

pumpkin seeds, thanks to the Men's Garden Club of America which made the seeds available. Now, we would like to see who has the biggest pumpkin or sunflower.

That Peony Bed

If you haven't already cut down your peony stalks, we'd like to remind you to do it before snow falls. Most peony beds like a good fall cleanup, especially if you've had peonies which didn't blossom.

Botrytis blight or fireblight is the main reason for non-flowering. This is a fungus which causes the buds to turn brown, then black, and then dry up without opening. You can do a lot to help prevent this next spring by cleaning up the bed now. Burn the peony debris, rather than placing it on the compost pile. Next spring, when the growth is about 8 to 10 inches high, spray the plants with Captan.

Miracle Healing Plant

We've been pleasantly surprised to learn how many AA readers have the miracle healing plant (Aloe vera) growing in their windows. As we've pointed out before, not only is this plant used to soothe the pain of burns and scalds, but many also

steep a small section of the leaf in hot water and make a tea-like brew that will "settle an upset stomach."

Some readers tell us they use the pulp of the leaf to spread on a sunburn, and women use it to help improve their complexion. A firm which makes an aloe cosmetic sent us a jar, and we liked it.

In case you don't know what this plant looks like, remember it has a fan of spotted leaves radiating from fleshy stems. It resembles a cactus, which it isn't. It has graceful stems of yellowish-to-reddish flowers about a foot tall.

Just for the record, do not confuse Aloe, the healing plant, with Agave, the century plant. The Agave is a desert plant and has a poisonous

(Continued on page 43)

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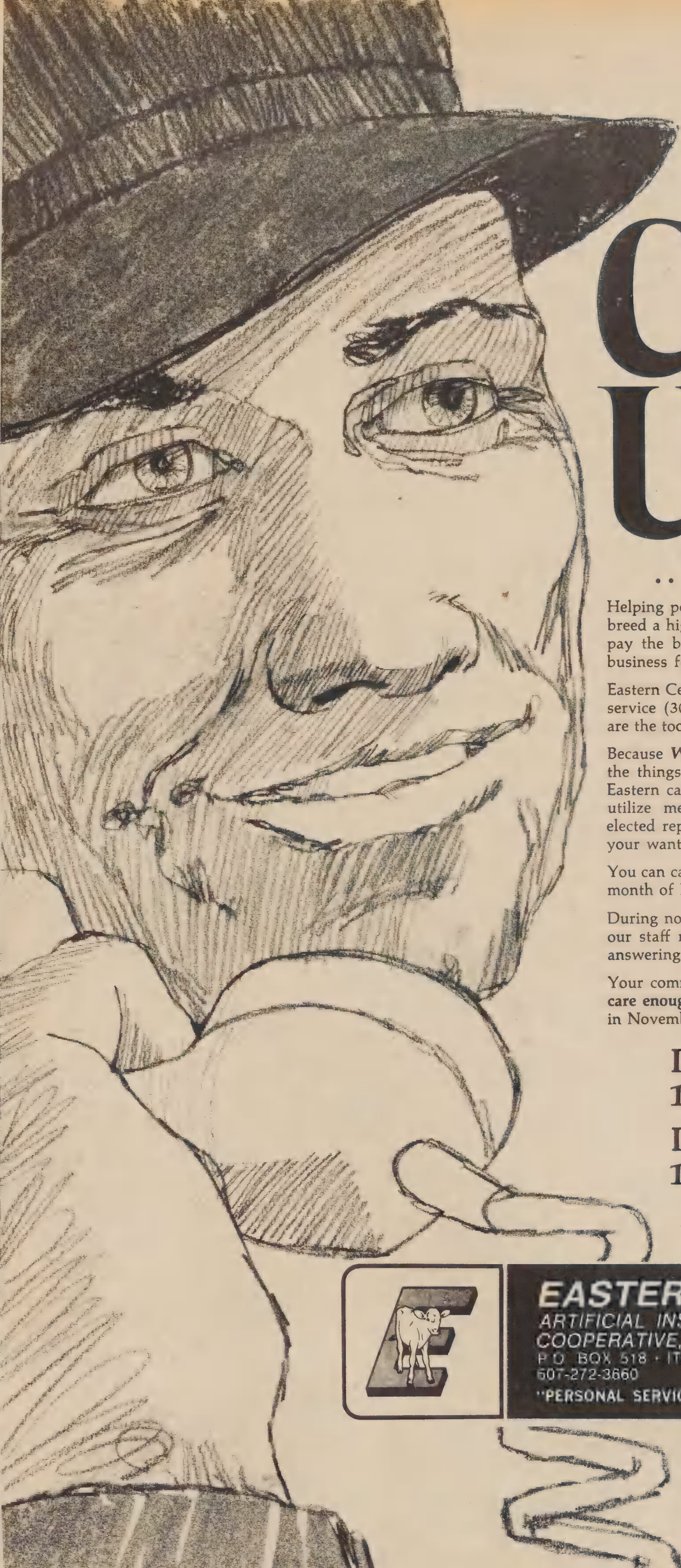
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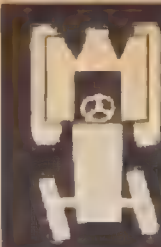
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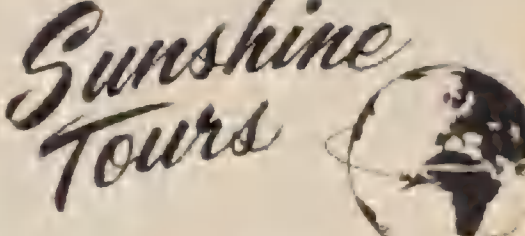
"TOBACCO" Sweet Chewing or pipe-smoking 85¢ per lb. \$8.00. Postpaid. Guaranteed. Fred Stoker, Dresden, Tennessee 38225.

TRAPPING

TRAPPERS - MINK, muskrats and somewhat hand-thrifty, prefer very fresh food, and usually capture and kill what they eat. Live baits attract mink best. My instructions and drawings describe my live bait methods for trapping mink. Strictly humane. So different, even non-trappers could find them interesting. This on mink included. Send \$1.00 and self-addressed stamped envelope. Mel Lashure, Northern New York Trapper, Rt. 2, Gouverneur, N.Y. 13642.

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ONE OF OUR most popular services to readers is sponsoring and arranging tours and cruises. They are popular because the worries about foreign customs, handling baggage, value of foreign money, language barriers, tickets, reservations, etc., can be forgotten. Trained, experienced agents take care of everything for you even tipping. For details on our future tours, write American Agriculturist Tours, Box 370, Ithaca, N.Y. 14850.



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COLLECTOR WANTS TO BUY old postcards. White's Farms, Williamson, New York 14589.

WANTED: LARGE OIL lined evaporator. Also 1000 good buckets. 607-668-8233.

WANTED: Used steel traps. Fishak Aher, Box 14, Tionesta, Pa. 16353.

WOMENS INTEREST

NO HUNTER FAMILY should be without this new, second edition of the Remington "Wild Game Cookbook". 174 pages of tested recipes plus these big extras - smoking game, dressing game, shipping game, soups, stuffings, taste tips and soundbough breads. Put your copy and \$2.95 to Cookbook, Dept. P5-11, P.O. Box 731, Brimleyton, Connecticut 06601.

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FASCINATING! "WEATHER TRAIN" card. Forecasts weather. Surprisingly accurate! Satisfaction guaranteed. Excellent gifts! 3 cards \$1.95; 5 cards \$3.00 (postpaid). Exclusive Products, 103 Park Avenue, New York, N.Y. 10017.

SAUSAGE MAKERS, GREAT! Recipes. Bologna, frankfurters, head cheese, summer, blood and pork sausage. \$1.00. Hamiltons, Box 233-59, New Ulm, Minn. 56073.

REDECORATE YOUR HOUSE NOW - Before moving or buying anything. New! Home Decorator's Easy Color Book shows you how. Every room picture detailed for professional results. Save time, money, guesswork! Write: Bookmark, Box 5275-A, Kansas City, Missouri 64112.

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Tiller Users!



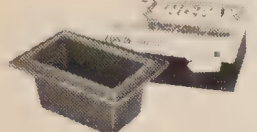
If the tiller you've been using has its revolving blades in **FRONT** and **NO** power to the wheels (See "TORTURE!" above left), you won't ever be happy with it again once you try the **TROY-BILT® Roto Tiller-Power Composter** which has its revolving blades in the **REAR** and **POWER DRIVEN WHEELS** — and is **SO EASY** to use you guide it with **just ONE HAND!** (See "JOY" above right). You do **NOT** have to walk behind it, leaving footprints! It does **NOT** shake you half to death! It leaves **NO** wheelmarks! There's **NO** unbearable tangling! The **TROY-BILT®** is now in its 11th great year. **SO** if you want tilling to be a **JOY** instead of **TORTURE** from now on, please clip this ad now and send today for the whole story of this wonderfully different and better design in tillers! We'll send complete details, including prices and **OFF-SEASON SAVINGS** now in effect for a limited time! Just ask for **FREE BOOKLET**.

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LIVESTOCK



Black Sheep — The board of directors of the American Hampshire Sheep Association has become very uptight about reports that some Hampshire breeders are involved in unadmitted crossbreeding in order to take a short-cut to the development of the "ideal" Hampshire.

The board expects some stringent new rules for breed registry... and for dealing with members engaged in questionable breeding practices. The question of whether there are wolves in the Hampshire sheepfold will be aired at the Association's annual meeting at the Ascot House in Chicago on the evening of November 25.

Exotic Crosses — An evaluation of gain, feed conversion and carcass characteristics of steers produced by Hereford dams and sired by bulls of the exotic breeds... Simmental, Limousin, Maine-Anjou, Lincoln Red, Brown Swiss, Charolais and Angus... showed the Brown Swiss crosses combining fast and efficient gain with choice carcass quality to provide the highest net return of any of the groups tested. Others, except for the Simmental cross, failed to grade USDA Choice under conditions of the test.

All groups were good gainers and efficient converters of feed. Simmental and Maine-Anjou excelled in gain, but no group showed any particular advantage in feed conversion.

Studies were conducted on a relatively small representation of each breed at Oregon State University.

Redcoats Coming — Six bulls of five lesser-known British beef breeds have recently been introduced into the U.S. The animals were imported by International Cryo-Biological Services (ICBS) of St. Paul, Minnesota, in cooperation with the Milk Marketing Board of England and Wales.

Breeds are the Devon, South Devon, Lincoln Red, Sussex, and Welsh Black. The first four are the British "red breeds," the last is black. Each has characteristics that can be important to the U.S. cattleman, depending on his type and kind of operation.

These British breeds, ICBS pointed out, cross well and are free of calving problems. They mature quickly,



"I didn't inquire about the work because what I am only interested in is the pay."

breed predictably, and produce superior beef.

ICBS will work with the existing breed organizations, as well as the various AI semen retailers throughout the county, to make semen from the imported breeds available to the American cattleman.

Consultants — Unique consulting service for Holstein dairymen in selected areas of New York is Genetic Evaluation and Management (GEM) Service. Available to advise fellow-

dairymen on breeding, management and marketing of cattle are Dale Putnam, Lisbon, New York 13658; Dale Hearn, Warren, Pennsylvania 16360; and Al Smith, Springville, Pennsylvania 18844.

These consultants, or the New York program directors (Robert Heman, 7 Canterbury Drive, Cobleskill, New York 12043 and Gary Janssen, P. O. Box 252, Avon, New York 14414) will be glad to discuss the service with interested dairymen.

The Song of the Lazy Farmer

The country's in a sorry state, the time has come again when fate decrees that I should pack my bag and, making sure that time don't lag, rush down to help the government find out where all the answers went. When things go wrong they always yell for lots of experts who can tell 'em what has gone amiss and why, but somehow they don't ever try to get the farmer's point of view, though we can tell them what to do a whole lot better than the guys who suddenly, with great surprise, discover problems can't be beat 'til folks have got enough to eat.

Of course, no one's invited me, but I can't stand to wait and see how inexperienced city men might get things all mixed up and then show great surprise when farmers say, "We can't grow this, it doesn't pay." If they'll keep still while I explain 'bout feeding steers and growing grain, it shouldn't take me very



long to tell them what they're doing wrong. But even if I have to take a month to get 'em all awake, Mirandy will be backing me by keeping chores all done, by gee.

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CALF SCOUR MEDIC BOLUS

SPECIAL: Buy one jar of 50 at regular price, \$15.95 — get 10 boluses (\$3.50 value) Free. If not satisfied after using 10 Free Boluses return jar of 50 to your dealer for full credit.

Effective Formula — Neomycin, Oxytetracycline and Vitamins. Useful for prevention or treatment of scours.

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SPECIFIC — For Dry Cows Only.

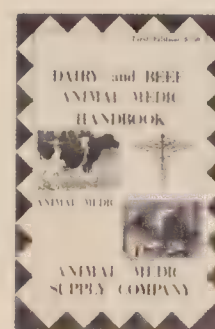
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Please send my free Animal Medic Catalog.

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(Continued from page 37)

principle in it. In fact, the "dwarf century" plant (*Agave miradorensis*) is often confused with the Aloe (which is a member of the lily family). The spine-tipped leaves of Agaves are rough, fibrous, with hard sharp teeth, while Aloes are soft, fleshy and nearly pulpy. Cats will chew on both leaves, and we've had one report that a cat died after eating leaves of the Agave or century plant.

AA Garden Clinic

A reader writes, "Why can't I get my Christmas cactus to bloom at Christmas time, instead of Thanksgiving?"

Answer — Keep in mind there is a "Christmas cactus" and also a similar plant which blooms around Thanksgiving. Remember, too, that the Christmas cactus and the poinsettia are flowering plants which need special care if they are to bloom around holiday time.

Both plants set flower buds under short-day conditions. If they are exposed to long, continuous dark night periods, such as occur naturally from mid-October on, they'll bloom; if the dark period is interrupted by light for only a short time, the plants will not set buds. That's why they need to be covered with a black cloth each night, starting in September and continuing the treatment until around Thanksgiving.

Tour

(Continued from page 36)

Spring." This semi-tropical resort area has been popular since before the Spanish conquest. The Palace of Cortez, now an historical museum, dates back to 1530.

Like all AMERICAN AGRICULTURIST tours, the Mexico Colonial Holiday is a first class, escorted, all-expense, no-worry vacation. Our tour manager looks after all details, and you will travel with a friendly, congenial group of people. Write today for the tour itinerary which gives complete information about costs.

Spend Thanksgiving in Bermuda!

Yes, it's late, but if you send in your reservation at once, you can spend Thanksgiving week at the beautiful Princess Hotel in Hamilton. Dates are November 19 to 24, and the price is unbelievably low!

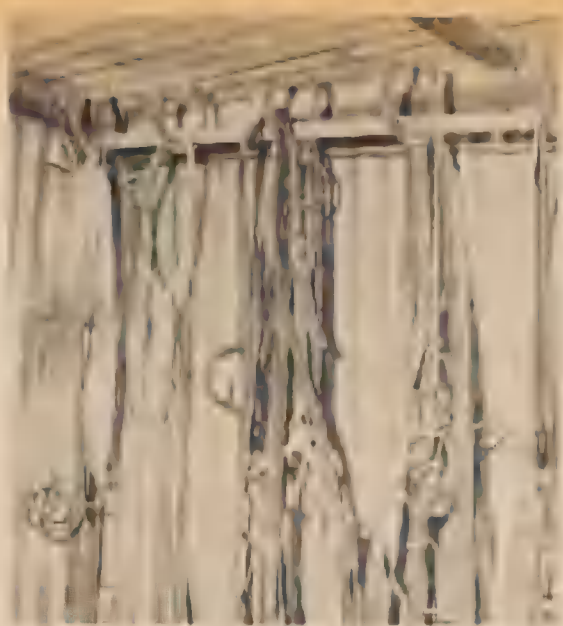
For seven glorious, relaxing days, you can do exactly as you wish — swim, lie on the velvety-soft sand beach, shop, play golf, cruise the blue Bermuda waters or explore the island on bicycle, in a horse-drawn carriage or a tiny taxi. Just tell your tour escort what you want to do, and all arrangements will be made for you. This will be one of the most enjoyable vacations you ever took!

MANY TONES

The autumn browns have many tones
From beige to tarnished bronze and
reds.

A winter breeze comes stealing in
And tucks the lovely leaves in beds
Of golden mums and evergreens
To keep them good and warm . . .
Protects them from the ice and snow
Which comes with winter's storm.

— Agnes Finch Whitacre



Lucky Shoes — Old horseshoes welded on the inside of the toe to an iron pipe make this bridle and cinch rack. It is suspended from the ceiling in the saddle shed.

No booklet

We're sorry to report that the booklet "The Craftsman Sells His Wares," as mentioned in Henry L. Fart's article entitled "Home Business Dollars and Sense" in our September issue, is out of print and copies are no longer available. We apologize to our readers who sent for the booklet and were disappointed not to receive it.

FFA AWARDS

The North Atlantic Region was well represented at the recent National Future Farmers of America Convention at Kansas City, Missouri. Regional winners of national

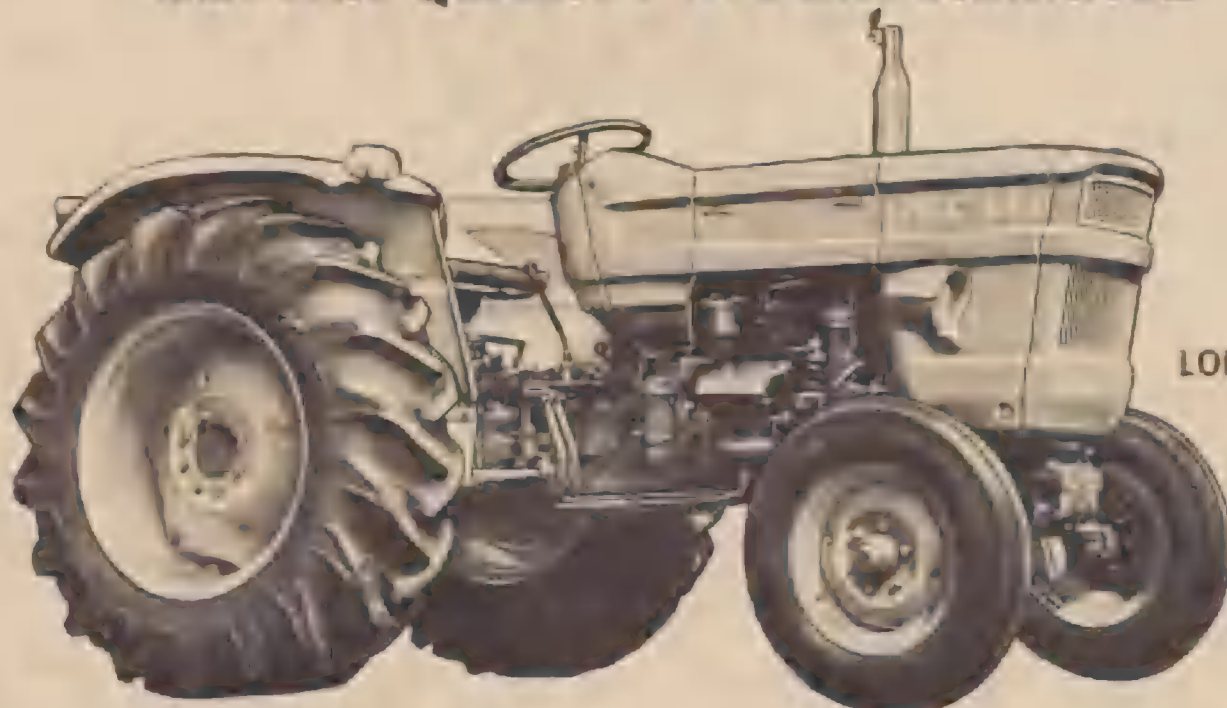
awards included: agricultural mechanics, Joseph H. Neumann, Bainbridge, New York; dairy production, Robert W. Campbell, Narvon, Pennsylvania; fish and wildlife management, Robert Glenn Knepp, Clearfield, Pennsylvania; ornamental horticulture, Robert C. Koeppel, Bogota, New Jersey; agricultural production, Donald E. Pollard, Falls Village, Connecticut; processing, Robert Hibbard, Colebrook, New Hampshire; sales and/or service, Gary Stauffer, New Holland, Pennsylvania; and poultry production, Harvey Dinerman, North Scituate, Rhode Island.

The Champlain Valley FFA Chapter of Essex Junction, Vermont, won a national Community Action Award for rehabilitating an outdoor recreation center in its community.

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PRECISION ENGINEERED FOR
BETTER QUALITY & PERFORMANCE



LONG 445 pictured

Compare the LONG 445 in price, weight, features, and quality with any similar tractor. Heavy-duty (3,800 lbs.) tractor with 3 point hitch featuring live P.T.O., live hydraulics, sensitive adjustable draft control and position control.

Fiat design — World's best buy and best quality. High clearance models and 4-wheel

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LONG 550—55 hp. P.T.O., 4 cylinder diesel, 8 forward speeds, power steering, live P.T.O., differential lock, automatic depth control. Optional extra, hose kit for quick coupling.

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The R9500 six cylinder diesel gives you a power reserve not found in smaller tractors. Solid construction and built-in-reliability will give years of top performance. 12 forward and 4 reverse gears. Dual clutch with 2 separate pedals. Independent power-take-off assembly. Two lever hydraulic lift control for draft and position locating. Power steering for longer hours with less fatigue. Full instrumentation.

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Full 1,000 hours or 12 months warranty.

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PLEASE SEND THE NAME OF MY NEAREST DEALER AND FREE INFORMATION ON THE FOLLOWING TRACTORS:

- ☐ LONG 445 TRACTOR
☐ LONG 550 TRACTOR
☐ LONG R9500 SPECIAL TRACTOR

NAME _____

ADDRESS _____

CITY & STATE _____ ZIP CODE _____

☐ FARMER ☐ DEALER ☐ STUDENT 21017

Northeast FARM EXPERIENCE



4-H LEADER

Carl Carlson of Cuba, New York, owns a 98-acre farm on Union Hill in Cattaraugus County. However, his full-time work is at Clark Brothers (a division of Dresser Industries) in nearby Olean. So, Carl would be included by agricultural statisticians in the category of "part-time farmer."

For the past 18 years, Carl has been a 4-H leader. At present, his 4-H Club is called Lakeview Farmers, and its members had winning ways in 1972's Cattaraugus County Fair. They took the ribbons for grand champion steer, grand champion lamb, grand and reserve grand champion hogs!

Helpers

"Don't imply that I deserve all the credit for such a record," Carl comments. "First of all, the kids worked hard to earn the ribbons... and other people helped me work with the club... and the parents of the club members backed us up. If any 4-H group is going to accomplish much, the support of the parents is necessary."

Over the years, Carl and his wife have also worked with a county-wide 4-H square-dance team... that won two blue ribbons at State Fair competition. The 4-H program has long been a family project with the Carlsons... parents and children. "Next year," Carl reports, "my grandchildren will start 4-H work."

He was not involved in a 4-H club himself when growing up on a farm near Pleasant Valley, New York. "But," he says, "I've always enjoyed working with young people... and I think 4-H is the best thing there is for kids. I know of no better activity for raising them, keeping them busy and off the street corners." He plans to continue his volunteer 4-H activities even after the youngest of the seven Carlson children is past the eligible age to participate as a club member.

Variety

The members of Lakeview Farmers include children from families operating commercial farms, and from those with part-time farms. They share an enthusiastic interest in farm-oriented skills and projects, though... and the entire club has on occasion visited each member's home to take a look at individual livestock projects.

The 4-H program was once almost entirely for farm youth... but in recent years its most innovative trail-blazing has been directed toward urban and suburban young people. However, it retains its strong appeal in rural areas... although now 4-H typically involves more rural non-farm youngsters than those from families making most of their living from farming. After all, 6 of 7 families living in the open country in New York State are not farmers.

The "mix" and techniques of 4-H programs shift across the years, and

the occupational background of participants changes. But the basic concepts remain valid to thousands of volunteer 4-H leaders like Carl Carlson... "learn by doing"... "make the best better"... "I pledge my heart, hands, head, and health."

Few of these leaders make the headlines in a world preoccupied with flamboyance, violence and negativism, but the quietly constructive legacy they leave will shape the lives of untold numbers of young people. — G.L.C.



Jack Potter points to a mark on one of the silos at the dairy barn. Water rose to this level during the 1972 flood.

THE FLOODS CAME

John (Jack) Potter got married in the traditional month of June in 1972... went on a honeymoon... and returned with his new bride just in time to see his farm inundated by the floods of Hurricane Agnes.

The Potters farm in the upper Genesee Valley between Scio and Wellsville, New York. Normally, the Genesee at that point is a placid and beautiful stream. But Agnes changed all that, turning the river into a ravenous torrent that chewed its channel 150 feet wider... and its bottom five feet higher... than prior to the flood.

Not content with devouring its banks (Jack lost six acres completely), the maddened river covered 10 more acres on the Potter farm with assorted rocks and gravel. One 16x45 wooden silo, just filled with haylage the day before the flood, was completely washed away.

Insurance

Insurance covered equipment and supplies damaged by the raging waters, but not building or cropland damage. The Potters had a contractor bulldoze flood-ravaged land back into a short dike to protect the barn... and the lumbering tractors also repaired the torn-up fields as best they could. ASCS paid 80 percent of the cost of cleaning up fields, and Jack reports prompt payment.

On land where inundation had killed crops, he planted oats and alfalfa in mid-August to make a quick green-chop crop for fall feeding. The

45-cow herd was moved to a neighbor's place as floodwaters rose, and milked there until the Potter barn was again usable.

Looking ahead, Jack hopes the Army Corp of Engineers will eventually do some channel improvement on the Genesee along his farm. At the moment, the farmstead remains all too vulnerable to "average" floods created by spring runoff of winter snows.

Jack is the fourth generation of Potters to operate this 325-acre farm. Family memories recall previous floods, but none as damaging as the Flood of '72... it will be one of those events forming a benchmark from which time calculations will be made in the area for generations to come.

DAIRYMAN OF THE YEAR

Any dairyman with a DHIA herd average of 17,013 pounds of milk for each of his 75 cows must be doing something right! The folks who chose the 1972 Dairyman of the Year for the state of Connecticut found Conrad Nelson of Uncasville doing many things well.

Mrs. Nelson (Marion) keeps the books at the "N"-Silver Brook Farm... with the help of the accounting service sponsored by the Connecticut Farm Bureau. Each month, business figures are sent in... and an analysis also is returned monthly. Preparation of the annual income tax report is included as part of services rendered.

The Nelsons started farming here in 1955... with Jersey cattle, and a few Holsteins. Now, it's a purebred Holstein herd with registration papers kept right up to snuff. A recently-built combination of milking parlor, hay storage, feeding area, machinery storage, and workshop is part of the improvements they've made along the way. A free-stall barn was built in 1957. Lumber for the barn was cut off the farm, except for the poles that form the skeleton.

Rent Land

Cropland is not adequate on the farm itself to feed the sizable herd... only 22 acres suitable for tillage are owned by the Nelsons. So they rent acreage in the area... ranging in distance from the farmstead between five and twelve miles.

"We've lost five farms that we once rented," Conrad comments. "Four went into housing developments, and one became a gravel pit. Sale prices were in the \$2,000 to \$3,000 range per acre." Fortunately, however, cropland rental rates in the area (\$10 to \$12 per acre) generally remain at a level where farmers can still afford to rent it for farming purposes.

Being land-short, Conrad has gone to the silage crop having highest potential for energy production per acre... corn. He planted 137 acres of it in 1972, and finished planting at the commendable date (for an incredibly wet year) of June 13. He harvests with a two-row pto chopper, stores corn silage in a trench silo, and in a stack.

Stacking

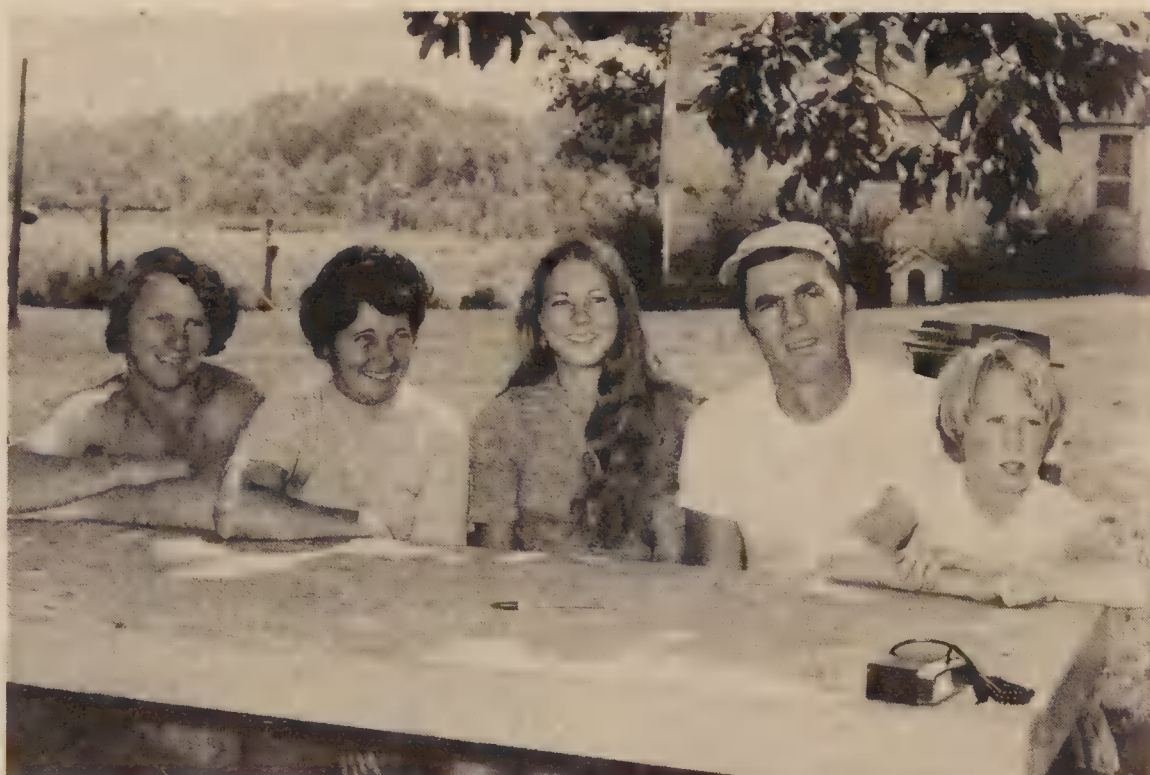
He's been stacking silage for eight years on a blacktop pad 30 feet wide and 150 feet long. During the silage-harvest season, 15 to 20 feet of silage are added to the length of the stack each day. It's packed with a crawler tractor, and covered with 6-mil black plastic.

How high is the stack when completed? "It's about 10 to 12 feet deep at the center," Conrad replies. "When the crawler threatens to roll off while we're packing, we start thinking it's getting high enough!"

Samples of corn silage are sent to Cornell University for nutritive testing, and then a complete ration is made up at the farm based on ensuing recommendations. For two years Conrad has been using a grain mix especially designed for combining with corn silage (Agway's Bunkermix... 22-percent protein). He's also been splicing out his roughage with Roughex this summer (oat hulls, hominy, molasses, and minerals)... 10 pounds of which replace 30 pounds of silage.

"Since cows are given free access to the silage-grain combination, we cull heavily," Conrad reports. "Even though beef prices are high, our operation is geared to milk production... not to animals that put a lot of fat on their backs."

In common with many farm families, the Nelsons don't have a chance to get away for a vacation very often, so they've brought the "vacation" to the farmstead in the form of an attractive and functional in-ground swimming pool. — G.L.C.



The Conrad F. Nelson family outside their home in Uncasville. L. to r.: son Wayne, Marion, daughter Judy, Conrad, and son Lynn. Photo: Gavitt.

SERVICE BUREAU CLAIMS
RECENTLY SETTLED

NEW YORK

Mr. Fred Eaton, Hamilton	\$ 8.95
(refund on order)	
Mr. Herbert W. Freeman, Black River	67.15
(premium refund)	
Mrs. Clifford Oliver, Pine Valley	10.45
(refund on order)	
Mrs. Howard Fredericks Sr., Canajoharie	1207.00
(insurance claim settled)	
Mrs. Jennie O'Brien, Eaton	13.86
(refund on order)	
Mr. Bryon E. Liddon, Little Falls	296.13
(tax refund)	
Mrs. Jay Dodds, Heuvelton	9.84
(refund on merchandise)	

NEW HAMPSHIRE

Miss Laura Coffin, Plymouth	7.85
(refund on order)	

Be sure you ask for "30 mil HPR glass" when replacing a car windshield. Although this "high-penetration-resistant" laminated safety glass is required by law on new cars, some replacement stocks still include the old-type windshields.

If you buy an imported item that you must assemble, be sure that instructions in English are included. Even though you are familiar with a foreign language, assembly instructions can be so complicated and technical that you will have serious problems.

Also make sure that you have proper tools. If measurements are in the metric system, obtain a conversion table. Then ask your retailer if he will back whatever guarantee is offered by the foreign company.

If you do run into assembly problems with your son's imported bicycle, don't chew on your pencil in your frustration. The lead content in the painted surface may be above safe levels.

Two leading pencil manufacturers have been cited and others have been warned to meet the established standard of .06 percent by weight of lead in their pencil coatings.

The so-called "lead" in a pencil is actually a non-toxic graphite compound. The lacquer coating on the pencil is the culprit.

Always request a receipt when you leave personal property for servicing, such as a TV set to be repaired or clothing to be laundered or cleaned. You might need it to support your claim should your property be lost due to fire, theft, flood or other causes.

A New York City firm has been after one of our subscribers to take on a dealership for a battery additive. Being a cautious person, the subscriber ordered two sample tubes. Not only did he find the material ineffective, but he now cannot get a refund as promised in the trial offer!

The Bureau of Product Safety, Food and Drug Administration, has been investigating hazards of playground equipment and recommending changes in design. Any accidents related to defective or unsafe equipment should be reported to Playground Equipment, Bureau of Product Safety, FDA, 5401 Westbard Avenue, Bethesda, Maryland 20016.

A subscriber was approached to sell auto polish and wax products supposedly approved by a prestige car manufacturer, claiming that the products are imported with the cars.

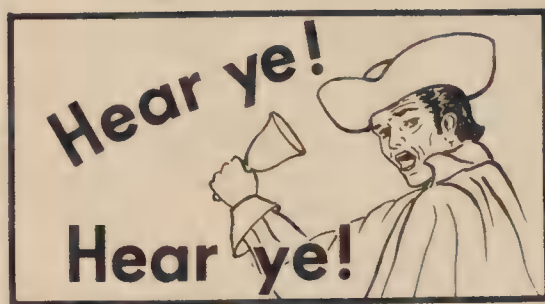
The parent company in England reports that one of the products is recommended in their owner's manual, but that their people know little about the other one. This appears to be an attempt to capitalize on a well-known name.

FREE?

Watch out when advertisements offer "free" gifts or sums of money, and then require you to send \$1.00, \$5.00 or \$10.00 for details.

If you are told you will receive \$500.00 if you send \$5.00, you may find that this means you supposedly could save that much if you took advantage of all services and suggestions offered in a monthly newsletter.

One outfit claims to have collected 75 different gifts for you — absolutely free. Actually, if you send \$1.00, you will be sent a list of free samples or services offered by commercial concerns. You will also have to send from 10¢ to 75¢ to cover postage and handling on many of the items. You could come up with a similar list yourself merely by leafing through the advertisements in any national magazine.



Watch for this new feature in coming editions. We plan to cover a variety of safety hints, promotion schemes, and traps to avoid. Since space does not permit detailed articles on the many items that come across our desk every day, we hope these "shorties" will serve as warning signals to our readers.

We invite readers to participate by submitting their experiences or items of interest. Address: Service Bureau, P. O. Box 370-H, Ithaca, New York 14850.

The Council of Better Business Bureaus warns that if an advertisement for earning money at home requires you to send money for further details, the offer can very well be a swindle. Usually, work-at-home schemes promise far more than they deliver, and the victims end up spending money rather than making it.

American Agriculturist, November, 1972

Fell Into Silo Unloader



Willis Smith Jr. and his mother have a beautiful farm between Elkdale and Salamanca, N.Y. He had the misfortune of falling into a silo unloader and the chain catching his foot. He spent thirty-two days in the hospital with a crushed foot. His medical expenses built up to \$2437.15 plus he had to hire a man while laid up which cost him \$1904.00. His hospital insurance with another company paid \$1867.15. Benefits from North American combination of policies paid him \$2678.32.

Local agent Rod Guichard of Randolph, N.Y. delivered checks to the Smiths. Mr. Guichard helped Mr. Smith build up his North American protection by writing policies for him in 1951, 1954, 1958 and 1966. Wisely, Mr. Smith kept all his policies renewed for this is how they paid him:

Medical Expenses benefits	\$1,360.00
Disability income benefits	
both in and out of hospital	\$1,318.60
Total	\$2,678.60

MR. SMITH'S LETTER OF THANKS:

I want to thank Rod Guichard, Randolph, N.Y. and the North American Accident Ins.Co. for the prompt and courteous service I received from them. I now realize how important it is to carry North American combination policies in addition to my Hospital Ins. There are also many additional expenses at a time like this that you can not anticipate or itemize.

Willis J. Smith Jr.

Keep Your Policies Renewed

NORTH AMERICAN ACCIDENT INSURANCE COMPANY

(In New York State)

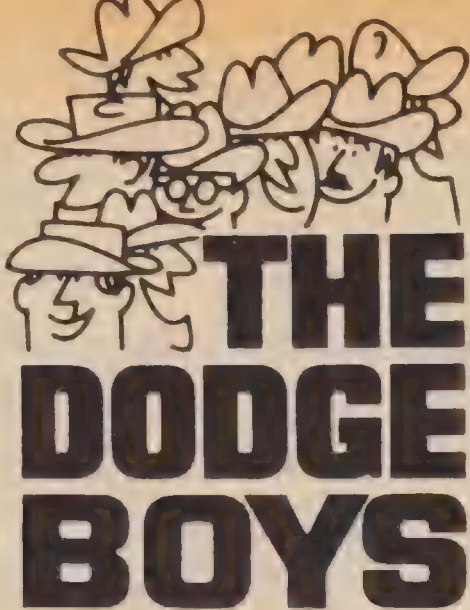
NORTH AMERICAN COMPANY

FOR LIFE AND HEALTH INSURANCE (In Other States)

GENERAL OFFICES: CHICAGO, ILLINOIS

SAVINGS BANK BUILDING

ITHACA, NEW YORK



ALBANY COUNTY

Albany Dodge, Inc.
770 Central Ave.
Albany, N.Y.
Newell Bros., Inc.
169-171 Ontario St.
Cohoes, N.Y.

ALLEGANY COUNTY

Pfuntner Sales & Service, Inc.
120 Railroad Ave.
Wellsville, N.Y.

BROOME COUNTY

Miller Motor Car Corp.
4455 Vestal Parkway E.
Binghamton, N.Y.
Deposit Motor Sales, Inc.
62 Second St.
Deposit, N.Y.

CATTARAUGUS COUNTY

Knight's Service Garage
111 Main St.
Franklinville, N.Y.
A. L. Sibley Motors, Inc.
520 Rock City St.
Little Valley, N.Y.
Paul Brown Motors, Inc.
1145 E. State St.
Olean, N.Y.
Randolph Motors, Inc.
91 Jamestown St.
Randolph, N.Y.
Kronz's Garage, Inc.
Main St.
Perryburg, N.Y.

Little Valley Auto Sales, Inc.
Route 353
Salamanca, N.Y.

CAYUGA COUNTY

Ryerson Dodge, Inc.
Grand Ave., R.D. #6
Auburn, N.Y.
James E. Ryerson, Inc.
55 Main St.
Moravia, N.Y.

CHAUTAUQUA COUNTY

Farrell Chrysler-Plymouth, Inc.
258 W. Main St.
Fredonia, N.Y.
Cusimano Bros. Garage, Inc.
616 Buffalo St.
Jamestown, N.Y.
Damon Motors, Inc.
120 Central Ave.
Silver Creek, N.Y.
Westfield Dodge City, Inc.
East Main St.
Westfield, N.Y.

CHEMUNG COUNTY

Carroll Motor Co., Inc.
251-253 Baldwin St.
Elmira, N.Y.

CHENANGO COUNTY

Nearing Dodge, Inc.
Hale Street Ext.
Norwich, N.Y.

CLINTON COUNTY

Ausable Motor Sales, Inc.
Main St.
Ausable Forks, N.Y.
E. S. Mason, Inc.
Upper Cornelia St.
Plattsburgh, N.Y.

COLUMBIA COUNTY

Chatham Motor Company, Inc.
17 Austerlitz St.
Chatham, N.Y.
Village Dodge, Inc.
98 Green St.
Hudson, N.Y.

CORTLAND COUNTY

Planck Motors, Inc.
192 Homer Ave., North
Cortland, N.Y.

DELAWARE COUNTY

Delhi Motor Co., Inc.
4 Meredith St.
Delhi, N.Y.
Craft Motor Co., Inc.
Main St.
Margaretville, N.Y.
Fendick Chrysler-Plymouth, Inc.
27 Smith St.
Sidney, N.Y.

K. Rappleyea Chrysler-Plymouth
Beaver & Main St.
Stamford, N.Y.

Buteau's Dodge Sales
60-62 Delaware Ave.
Walton, N.Y.

ERIE COUNTY

Crest Dodge, Inc.
1510 Orchard Park Rd.
Buffalo, N.Y.
James F. Shaw Co.
Olean Rd.
Chaffee, N.Y.
Mid-City Dodge, Inc.
2185 Walden Ave.
Cheektowaga, N.Y.
John K. Kruse Motors, Inc.
10085 Main St.
Clarence, N.Y.
Fairway Dodge Sales, Inc.
395 Buffalo St.
Hamburg, N.Y.
Pioneer Dodge, Inc.
3445 Delaware Ave.
Kenmore, N.Y.
DeLacy Motors, Inc.
5229 Broadway
Lancaster, N.Y.
Bob Johnson Motors
195 W. Main St.
Springville, N.Y.
Transitowne Dodge, Inc.
7408 Transit Rd.
Williamsville, N.Y.

ESSEX COUNTY

Vincent S. Jerry & Sons, Inc.
South Main St.
Crown Point, N.Y.
Adirondack Auto Service
Route #9
Elizabethtown, N.Y.

FRANKLIN COUNTY

Lakeside Garage
111 River St.
Saranac Lake, N.Y.
S & S Auto Sales, Inc.
W. Main St. Rd.
Malone, N.Y.

FULTON COUNTY

H & P Motors, Inc.
67 South Main St.
Gloversville, N.Y.
Howell & Pierson, Inc.
224-226 W. Main St.
Johnstown, N.Y.

GENESEE COUNTY

Greco Sales & Service, Inc.
Route 20
Darren Center, N.Y.
Zigrossi Motors
109-111 Main St.
Oakfield, N.Y.
LeRoy Chrysler-Plymouth, Inc.
7133 West Main St.
LeRoy, N.Y.

HAMILTON COUNTY

Day's Garage
Rt. 30, North
Long Lake, N.Y.

HERKIMER COUNTY

Holt Bros., Inc.
94-100 W. Main St.
Mohawk, N.Y.
Newman Motor Sales
163-165 South Main St.
Dolgeville, N.Y.

JEFFERSON COUNTY

Fulkerson Motors
Route #11
Adams, N.Y.
Carthage Dodge, Inc.
320 N. School St.
Carthage, N.Y.
Eveleigh Motor Sales, Inc.
518 William St.
Dexter, N.Y.
Bickelhaupt's Garage
211-213 Main St.
Theresa, N.Y.
Lathan's, Inc.
Outer Washington St. Rd.
Watertown, N.Y.

LEWIS COUNTY

Donaldson Dodge
Croghan, N.Y.

LIVINGSTON COUNTY

Frank Piraino, Inc.
110 W. Main St.
Avon, N.Y.
Lent Dodge, Inc.
8 Ossian St.
Dansville, N.Y.
Schiano Chrysler-Plymouth, Inc.
84 Avon Road
Geneseo, N.Y.

MADISON COUNTY

Madison Dodge Inc.
Main St.
Madison, N.Y.
A. F. Ryan & Sons, Inc.
192 Madison St.
Oneida, N.Y.

MONROE COUNTY

Barry Dodge
4579 S. Main St.
Brockport, N.Y.

Greece Dodge City, Inc.
4477 Ridge Road, West
Greece, N.Y.

Culver Dodge, Inc.
1733 Ridge Road, East
Rochester, N.Y.
McEvoy Dodge, Inc.
2400 W. Henrietta Rd.
Rochester, N.Y.
Weller Motors, Inc.
Stutson St. & Thomas Ave.
Rochester, N.Y.
Gray-Raycheff, Inc.
69 Rochester St.
Scottsville, N.Y.
Ross Motors Webster Corp.
943 Ridge Road
Webster, N.Y.

MONTGOMERY COUNTY

MacLaughlin Auto Sales, Inc.
10 West Main St.
St. Johnsville, N.Y.

NIAGARA COUNTY

Schmid Motors, Inc.
5869 South Transit Rd.
Lockport, N.Y.
Falls Dodge, Inc.
2380 Military Rd.
Niagara Falls, N.Y.

ONEIDA COUNTY

Zeigler's Motor Sales, Inc.
202 Ford Ave.
Boonville, N.Y.
Clinton Chrysler Plymouth, Inc.
12 Franklin Ave.
Clinton, N.Y.
A. J. Ryan Motors, Inc.
601 W. Dominick St.
Rome, N.Y.
Dodge City of Utica, Inc.
Truck Route 5A
Yorkville, N.Y.
Crist Motors
14-18 Main St.
Camden, N.Y.

ONONDAGA COUNTY

Cicero Dodge, Inc.
Rt. 11 & Pine Grove Rd.
Cicero, N.Y.
Val's Motors, Inc.
756 State Fair Blvd.
Lakeland (Solvay), N.Y.
A. F. Ryan & Sons, Inc.
102-106 E. Seneca St.
Manlius, N.Y.
Sam Dell's Dodge Corp.
1011 W. Genesee St.
Syracuse, N.Y.

ONTARIO COUNTY

Finger Lakes Motors, Inc.
2555 Rochester Rd.
Canandaigua, N.Y.
Geneva Automobile Company, Inc.
145 Castle St.
Geneva, N.Y.

ORLEANS COUNTY

Orleans Dodge, Inc.
10825 Maple Ridge Rd.
Medina, N.Y.

Engle-Harrison Motor Co., Inc.
225 East Bank Street
Albion, N.Y.

OSWEGO COUNTY

Longley Bros.
East River Rd., South
Fulton, N.Y.
Leon Shapiro Motor Sales, Inc.
410 West First St.
Oswego, N.Y.
Dick Goslin, Inc.
Route 11, North
Pulaski, N.Y.

OTSEGO COUNTY

Mohawk Chrysler Plymouth, Inc.
U.S. 28, Chestnut St., South
Cooperstown, N.Y.
Burr's Dodge, Inc.
Chestnut St.
Oneonta, N.Y.
Frank Patterson & Sons
Main St.
Richfield Springs, N.Y.

RENSSELAER COUNTY

Ken Goewey Dodge, Inc.
360 Fifth Ave.
Troy, N.Y.

ST. LAWRENCE COUNTY

Brown's Dodge, Inc.
Russell Road
Canton, N.Y.
Gouverneur Motor Sales, Inc.
385-387 E. Main St.
Gouverneur, N.Y.
North Country Dodge, Inc.
E. Orvis St.
Massena, N.Y.
Harold L. McAdam
R.D. Heuvelton Rd.
Ogdensburg, N.Y.
Blevins Motors
Route #4
Potsdam, N.Y.
Clarence J. Russell
837 State St.
Ogdensburg, N.Y.

SARATOGA COUNTY

Ed Shepherd Dodge, Inc.
80-84 Church St.
Saratoga Springs, N.Y.

SCHENECTADY COUNTY

Wedekind Motors, Inc.
1595 State St.
Schenectady, N.Y.
Scotia Motors, Inc.
110 Mohawk Ave.
Scotia, N.Y.

SCHOHARIE COUNTY

Head Sales & Service
Route 145
Lawyersville, N.Y.

SCHUYLER COUNTY

Learn Motor Company, Inc.
502 N. Franklin St.
Watkins Glen, N.Y.

SENECA COUNTY

Starr Shaw Sales, Inc.
364 E. Main St.
Waterloo, N.Y.

STEBEN COUNTY

Warren Stiker
E. Front St.
Addison, N.Y.
Maple City Dodge, Inc.
76 Seneca St.
Hornell, N.Y.
Scudder Motor Co.
8524 Main St.
Campbell, N.Y.

TIOGA COUNTY

Tioga Motors, Inc.
Upper Fifth Ave.
Owego, N.Y.

TOMPKINS COUNTY

William T. Pritchard, Inc.
304-306 S. Cayuga St.
Ithaca, N.Y.

WARREN COUNTY

Ford Garage Co., Inc.
109 Warren St.
Glens Falls, N.Y.

WASHINGTON COUNTY

Griffin Brothers, Inc.
R.D. (Route 22)
Salem, N.Y.

WAYNE COUNTY

Tiberio Motors
W. Church St.
Savannah, N.Y.
Macedon Motors, Inc.
90 Main St.
Macedon, N.Y.
Wayne Motor Sales
335 W. Union St.
Newark, N.Y.
Arcadia Oil Co., Inc.
515 North Main St.
Newark, N.Y.

Pat Mitchell Auto Sales, Ltd.
Route 104
Ontario, N.Y.

WYOMING COUNTY

McClurg Chrysler-Plymouth, Inc.
125 N. Center St.
Perry, N.Y.

YATES COUNTY

Penn Yan Dodge, Inc.
R.D. 5, Route 14A
Penn Yan, N.Y.

PENNSYLVANIA

BRADFORD COUNTY

Penn-York Valley Motors Co., Inc.
310 N. Keystone Ave.
Sayre, Pa.
Calkins Motor Sales, Inc.
510 Elmira St.
Troy, Pa.
Dave Snell Chrysler-Plymouth, Inc.
Route #6
Wysox, Pa.

MCKEAN COUNTY

Harold C. Bauschard
170 Seaward Ave.
Bradford, Pa.
Eldred Garage
Main St.
Eldred, Pa.
Battista Motor Sales
395 N. Fraley St.
Kane, Pa.
Smethport Garage Co., Inc.
Main St.
Smethport, Pa.
East Side Garage
Route 6
East Smethport, Pa.

TIOGA COUNTY

Ed Brueilly Dodge
R.D. #1
Mansfield, Pa.

WARREN COUNTY

Quack's Motors, Inc.
2690 Pennsylvania Ave.
Warren, Pa.

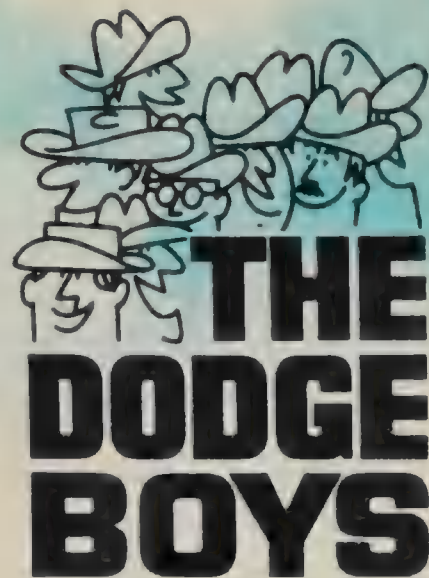
THE DODGE SNO-FITER



Winter and Still Champion.

HANDLES SNOW REMOVAL QUICK AS A BREEZE.

If snow is your kind of business, the Dodge Boys want you to take a look at the Dodge Sno-Fiter. This great snow removal package is mounted on a four-wheel-drive Dodge pickup that's tough enough to tackle the hardest job "Old Man Winter" has to offer. Choose either the W100 or W200 power wagon pickup, and you get the manual angling blade, three-way control valve, heavy-duty front axle, and front springs and power lift. Optional items required with this Sno-Fiter package are heavy-duty rear springs, alternator, battery, plow lights, front locking hubs, and more, depending on the model. So get the full story on the Dodge Sno-Fiters and the other tough Dodge trucks from the Dodge Boys. Get immediate delivery on your new Dodge Sno-Fiter. We have 'em in stock, ready to roll.



Farmers think big about their giant
318-bushel New Idea Spreaders!

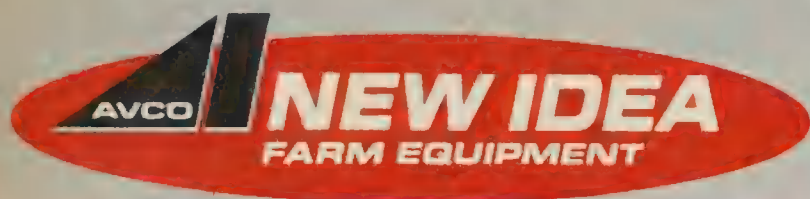
"84 fewer trips
a year."

"I make about
75 fewer trips a year!"

"My time is money. And this one
really saves time."

"Really does a good job
of spreading."

"I was surprised.
I finished my spreading
job in the morning."



Coldwater, Ohio 45828

If you think big, it'll work for you, too. For example: A farmer with a 100-animal herd, and who's been using a 200-bushel spreader, can save about 60 trips to the field each year—just by switching to this giant 318-bushel New Idea. Available with a Single Beater or with Double Beaters. You can equip it with a hydraulic endgate or a pan attachment for

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DECEMBER 1972

*American
Agriculturist*
and the
RURAL NEW YORKER

Visiting

with Home Editor Augusta Chapman

Each year we seem to lose a little bit more of Christmas. This is not because the season is shortened, certainly, for Christmas wrappings, decorations and cards now appear in our stores about the middle of October. Neither is it because we're deprived of lovely Christmas symbols — gift giving, a creche on the mantel and beautiful carols.

I believe it's because each year the real meaning of Christmas becomes more obscure, buried ever deeper beneath the make-believe world of Santa Claus and his reindeer, artificial blue-lighted tinsel trees, the frenzied rush of shopping for gifts we sometimes can't afford and songs like "Christmas Tree Rock."

Don't get me wrong — I'm not anti-Santa Claus. I looked forward to his coming when I was a kid, and our two boys enjoyed hanging up a pair of Dad's socks for Santa to fill with small gifts on Christmas Eve. But never was Santa the central figure of our Christmas. I always remember the true story of a young boy being enlightened about Santa and saying to his mother, "Is the story of Jesus make believe too?"

That was many years ago; I wonder how many children today consider the account of Jesus' birth in Bethlehem just another pretty fable, to be enjoyed for a few days along with the story of Santa traveling from the North Pole, led by Rudolph and his shiny nose.

I like these stanzas from Ralph W. Seager's poem, "Tell Me Is The Child Still There?"

Tell me is the Child still there?
For I am too busy to look.
There are hundreds of Christmas cards to mail
To names in an address book.

Tell me is the Child still there?
I can't take time to see,
With turkey to buy and presents to tie,
And lights for the Yuletide tree.

Tell me is the Child still there?
I've come at last to call;
But the shepherds I can barely see,
And the wee Babe . . . not at all.

Have a happy Christmas Season.

Foods Specialist Retires

All of our readers will be sorry, I'm sure, to learn that Mrs. Alberta Shackelton has retired. For twenty years, Alberta has written the foods articles for American Agriculturist. She has shared her favorite recipes with you and included suggestions for good nutrition, information about new products to be found in the supermarket and money-saving hints.

She has answered hundreds of questions on all sorts of subjects when you asked for help, often hunting through many cookbooks to find some particular recipe you wanted. Many of you have told me you liked Alberta's practical foods information and the fact that most ingredients in her recipes were already to be found in your kitchen cupboards. I know her articles have been one of the most popular features in our Home Department pages.

It will undoubtedly seem good to Alberta not to be bothered with that 15th-of-the-second-preceding-month deadline any longer, and we hope she will thoroughly enjoy the leisure time this will add to her schedule.

For the next several months, guest columnists will be writing our foods articles. This month's feature, "Festive Family Fare," is written by Marcia (Mrs. David) Pimentel. Currently Mrs. Pimentel is an Instructor in the Human Nutrition and Food Department at the New York State College of Human Ecology, Cornell University, Ithaca, New York. We are happy to welcome her to our family of AA contributors.

Cooperation Needed

Our "Do You Have . . ." column is a popular feature of the Northeast

Living section of AMERICAN AGRICULTURIST, and we are always months behind printing the questions you send in. I am constantly amazed when you tell me how many letters you receive, giving a recipe or other information you have requested.

There is one thing which occasionally bothers me, however. That is when another reader writes and asks the same question we have recently printed; I tell her to send you a self-addressed, stamped envelope so you can share the recipe or whatever with her, and you do not answer. This does not happen too often, but when it does, the reader has to wait many months for the question to be printed again.

I have been asked to print answers to some "Do You Have . . ." ques-

tions in the paper, but I'm sure you can easily imagine the amount of space I would need to do this! If we all cooperate in sharing information someone has sent us, the column will help more people and be of far greater value. Sermon ended!

PLANTS IN WINTER

by Roy Z. Kemp

Upon my kitchen window's sill,
My potted plants grow, bright and green,
Although outside the cold winds blow
And only pale sunlight is seen.
But in the pleasant kitchen warmth
There is no tinge of winter chill;
Each plant leans toward the warmth of sun,
And each thinks it is summer still.



They're all comin' over to Ca



Cornbelt look

by Amos Kirby
New Jersey Editor

THIS issue of the New Jersey column is being written in the heart of the Cornbelt. I am on another of my trips around the country, and this time I wanted to get a look at the corn-cattle-hog center of America.

The American heartland has had good crops . . . and prices are satis-

factory, largely due to the Russia-China grain purchases. The Midwest has had better than normal amounts of rain, with yields of wheat up to 40 bushels and up to 150 bushels of corn per acre.

Hog and beef prices are providing growers with a good market at prices that show a profit. Consumers who

think meat prices are high need to take a look at farm prices for the five years from 1967 to 1972 and realize that those years included some lean times for livestock producers. Some farmers in the Northeast, from Virginia to Maine (especially the potato and vegetable growers) are still receiving unprofitable prices, and many are looking for low-labor crops such as are grown in mid-America.

Labor Costs

The great contrast between the Northeast and the Midwest is the cost of labor. The latter has little or no farm labor problem; it produces crops that are mechanically planted, cultivated and harvested. One grower near Springfield, Illi-

nois, grows over 900 acres of corn with the help of one regular employee . . . and at harvest time has one extra man just to haul the shelled corn to the storage bins.

Very few growers in the Northeast have the land, either owned or rented, to justify the types of equipment on the big operations in Illinois, Nebraska, Kansas or Iowa.

In view of the labor problems in New Jersey and other states in the Northeast, I can see a definite shift to crops that can be produced mechanically. Take a look at Delaware. A few years ago, growers were heavy in high-labor vegetables. Today, they have largely shifted to corn and soybeans . . . and only limited amounts of vegetables.

I am not suggesting that eastern growers should shift to grain, but I believe that if growers are to survive in farming, they should be thinking of crops that can be grown and harvested mechanically.

ASPARAGUS OUTLOOK

There is still a lot of sunshine in South Jersey, despite the announcement by Seabrook Farms that they will not be processing asparagus in 1973. The Seabrook operation processed an estimated 50 percent of the crop's acreage in that area.

Dr. George Webster, manager of the New Jersey Agricultural Marketing Association, has informed me that there are some promising outlets for this acreage. Arthur West, president of the Farm Bureau, called a grower conference to discuss potential markets for all the asparagus that will be available in the future.

Here's an analysis of the situation:

1. In 1972, the Del Monte plant at Swedesboro closed down its asparagus canning operation. Part of this acreage was absorbed by the Pepper Co., Vineland; a considerable volume also moved to processors on the Eastern Shore.

These outlets absorbed all the tonnage that formerly was processed by Del Monte.

2. There are promising outlets for asparagus on the fresh markets. An analysis of sales at the Swedesboro and Vineland auctions in 1972 shows that they could handle substantial additional supplies.

There remains the additional potential of the big fresh outlets on both the Philadelphia and New York markets.

3. A new and almost untouched outlet for fresh asparagus has been tested by the College of Agriculture at the South Jersey Research Center, Bridgeton.

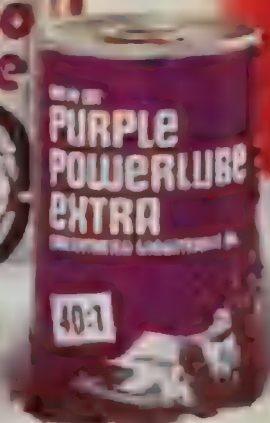
This new package consists of placing all-green spears in a plastic container . . . about one-half pound of all-usable asparagus. This package has an attractive consumer appeal and a much longer shelf life.

A personal serving of this asparagus has shown me that even several days after packing, it was difficult to tell the difference between it and the freshly-cut product.

4. Why did Seabrook decide to eliminate asparagus from its operations? The basic reason announced was that the volume available was insufficient for them to operate an efficient unit.



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the Cat

December holidays are happy days — laughter, sharing and the coming together of friends and families to celebrate. A easy-to-do buffet is one way for the busy hostess to have time to join in these festivities.

Many of the dishes in the featured buffet menu can be made the day before the party, or as with the meat balls and cookies, made a week or two ahead and frozen.

Let the attractiveness of the colorful food set the table! A simple cloth, accented with fragrant forest greens and the soft glow of candlelight, is all that is needed.

The buffet table simplifies serving. Offer the apple juice in the living room as guests arrive, or place a glass at each setting. Guests help themselves from the buffet table and are then seated for really comfortable eating. Seconds and dessert are within easy reach of all, and only the beverages need be served.

BAKED HAM WITH APRICOT GLAZE

Select a canned or fully cooked ham, weighing about 5 pounds. For a canned ham, have the butcher slice it into thin slices. Then tie slices together with string before you reheat it. Follow directions given for the ham. (Plan on 1 to 1½ hours to reheat it in a 350° oven.)

During the last 20 minutes of baking, glaze the ham. For the unsliced ham, score the outer surface by making ½" deep diagonal cuts to form a diamond pattern. This helps retain the glaze and makes the cooked ham more attractive. The glaze coats the sliced ham easily.

To make glaze: Mix 1 cup apricot jam, 1 tablespoon lemon juice, ½ teaspoon dry mustard and a dash of cloves. Spoon glaze over the ham and continue to baste until the meat is heated through.

To serve the canned ham — untie, remove strings and arrange slices of meat on serving platter. The whole ham should be carved into thin slices. Spoon extra glaze over the slices just before serving. Garnish platter with holiday greens or holly.

PARTY MEAT BALLS

- 1 pound lean ground beef
- ½ pound ground pork
- 1½ cups soft bread crumbs
- 1 cup evaporated milk or heavy cream
- ½ cup finely chopped onion
- 3 to 4 tablespoons butter or margarine
- 1 egg
- ¼ cup finely chopped parsley
- 1½ teaspoons salt
- Dash pepper and nutmeg
- Gravy

Mix the meats together. Soak the bread in milk for 5 minutes. Meanwhile sauté onion in 2 tablespoons butter until tender but not brown.

Combine meats, crumb-mixture, onion, egg, parsley and seasonings. Beat mixture until fluffy (beat with electric mixer set at medium for 4 to 5 minutes or by hand for about 6 minutes). Form meat mixture into 1-inch balls. To prevent meat from sticking to your hands, rinse them in cold water.

Using a large skillet, brown meat

Festive Family Fare

by Marcia Pimentel



This sparkling Layered Cranberry-Apple Salad takes a bit of time to make, but it can be done ahead of time and will be a highlight of your Christmas buffet table.

Photo: National Cranberry Assn.

balls, a few at a time, in butter. To keep balls fairly round, gently shake them in the pan or turn frequently with a spatula or slotted spoon. When all balls are browned, set them aside and make gravy in the same pan.

GRAVY

- 2 tablespoons flour
- 1 cup canned consommé or 1 cup water and 2 beef bouillon cubes
- ¼ teaspoon instant coffee

Add flour to fat in the skillet, stirring well to mix. Add liquid and the instant coffee. Heat mixture, stirring constantly until gravy comes to a boil and is thickened. Reduce heat, add meat balls; cover and cook slowly 25 to 30 minutes, until meat balls are completely cooked.

If you make meat balls the day before your party, transfer cooked balls to a shallow pan, add gravy, cover securely and refrigerate immediately. The day of your party, the meat balls can be reheated on top of stove or in a 350° oven for 30 to 35 minutes. These meat balls can also be frozen. Yield: 4 to 5 dozen balls.

GOLDEN RICE

- 5¾ cups water
- 2 teaspoons salt
- 5 tablespoons butter or margarine

- Pinch of crushed saffron
- 3 cups raw rice
- ½ cup white raisins (optional)

Combine water, salt, butter and saffron in a large saucepan. Bring to a boil; add rice and raisins. Cover. Reduce heat and continue to cook over low heat 25 to 30 minutes, or until all water is absorbed and the rice is just tender. Yield: 10 to 12 servings.

LAYERED CRANBERRY-APPLE SALAD

- 1 package (3 oz.) strawberry gelatin
- 1 cup boiling water
- 1 can (1 lb.) whole cranberry sauce
- 1 apple
- ½ cup diced celery
- 1 package (3 oz.) lemon gelatin
- 1¼ cups boiling water
- ¼ cup lemon juice
- 1 package (8 oz.) cream cheese, softened
- 1 apple, cored and diced
- ½ cup salted cashew nuts, chopped
- 1 package (3 oz.) lime gelatin
- 1 cup boiling water
- 1 can (8 oz.) grapefruit sections
- Frosted Cranberries

Dissolve strawberry gelatin in 1 cup boiling water. Stir in cranberry sauce. Chill till partially set. Core and halve apple. Reserve one half, rubbing cut surface with lemon juice. Cut remaining half in slices; arrange slices around bottom of 8-cup mold. Fold celery in gelatin; spoon over

apple slices in mold. Chill until almost set.

Meanwhile, dissolve lemon gelatin in ¼ cups boiling water. Stir in lemon juice. Gradually add to cheese, beating smooth with electric mixer. Chill till partially set. Stir in 1 diced apple and nuts. Spoon over strawberry layer; chill almost firm.

Meanwhile, dissolve lime gelatin in 1 cup boiling water. Drain grapefruit, reserving syrup; add water to syrup to make ¾ cup. Add to gelatin. Chill till partially set. Dice reserved apple half. Fold apple and grapefruit into gelatin. Spoon over lemon layer in mold. Chill till firm, 6 hours or overnight. Garnish with Frosted Cranberries. Makes 12 servings.

Have an Easy Dessert

For dessert, arrange an assortment of your family's favorite holiday cookies. Gay holiday candies and glazed nuts make delicious additions.

DUXBURY FRUIT BARS

- 1¼ cups all-purpose flour
- 2 cups (1 lb.) mixed candied fruit
- ¾ cup chopped walnuts
- 1 cup raisins or ½ cup raisins and ½ cup chopped dates
- ½ cup butter or margarine
- ½ cup granulated sugar
- ½ teaspoon orange or lemon rind
- ½ teaspoon baking powder
- ½ teaspoon salt
- 3 eggs, slightly beaten

Combine the flour, candied fruit, nuts and raisins. Cream the butter; gradually add sugar, creaming well after each addition and until mixture is light and fluffy. Add fruit rind; mix in baking powder and salt.

Add eggs, one at a time, mixing to blend. (For darker bars, ¼ cup molasses can be added here.) Gently stir flour-fruit mixture into creamed mixture. Do not over-mix.

Pour into greased 13x9" pan. Bake 25 to 30 minutes, until lightly browned, in a 350° oven. Cool. If desired, frost with vanilla glaze. Cut into squares. Yield: 24 to 30 squares.

VANILLA GLAZE FROSTING

- 1 cup sifted confectioners' sugar
- 2 tablespoons soft butter or margarine
- ½ teaspoon vanilla
- 2 to 3 tablespoons milk

Mix sugar and butter; add vanilla. Gradually add milk until frosting is thin but not runny.

TRADITIONAL BUTTER COOKIES

- 2¼ cups sifted all-purpose flour
- 1 teaspoon baking powder
- ½ teaspoon salt
- ¾ cup butter
- ¼ cup sugar
- ½ cup firmly packed brown sugar
- 1 egg
- 1 teaspoon vanilla
- ¾ cup pecans, finely chopped

Sift together flour, baking powder and salt. Cream butter. Add both sugars gradually, creaming well. Add egg and vanilla; beat well. Blend in dry ingredients gradually and mix until all parts of cookie dough are moistened. Add chopped pecans and mix.

Divide dough in half, shape into rolls and wrap each roll in waxed paper or foil. Chill overnight. When ready to bake, slice the rolls into ¼-inch-thick slices. Sprinkle with colored sugar. Bake on greased baking sheets in a 425° oven 5 to 7 minutes, until set but not browned. Yield: 7 to 8 dozen cookies.

American Agriculturist, December, 1972

HOLIDAY BUFFET

Chilled Apple Juice

Apricot Glazed Baked Ham

Party Meat Balls

Golden Rice

Assorted Vegetable Relishes

Toasted Sesame Rolls

Layered Cranberry-Apple Salad

Holiday Cookies

Glazed Nuts

Milk, Tea or Coffee



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OUR COVER

Bringing in the Christmas tree to the farmhouse is always a memorable occasion . . . in no way diminished by the substitution of mechanical horsepower for Old Dobbin. This is the Earl Hudson family of Camillus, New York using a snowmobile sled to bring the holiday tree to the residence at Manorcrest Farms. Photo: Joseph Albino



Don't push your snow problems aside— blow them away with a



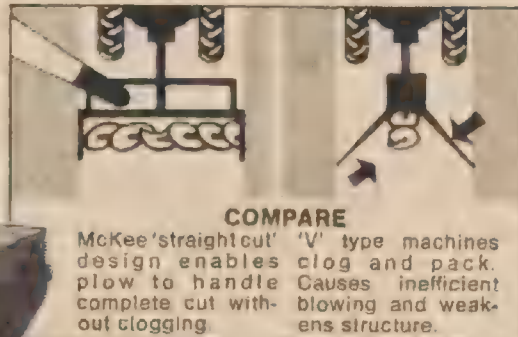
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EDITORIALS

by GORDON CONKLIN



WE'LL MISS THEM

Dr. James F. Roberts . . . the famed "Doc Roberts" who once wrote a regular livestock column for *AMERICAN AGRICULTURIST* . . . died recently. He was born at Claremont, New Hampshire, and resided in his beloved Granite State (East Andover) at the time of his death. His feet had trod the trails of faraway places, though, including the operation of a farm near Batavia, New York, for many years.

Another long-time associate of *AMERICAN AGRICULTURIST* also died recently. Kirby Lewis, a resident of Deansboro, New York, represented the publication as a subscription salesman for 21 years.

Both will be deeply missed by all who knew them.

THE DISMAL SCIENCE

The study of economics has often been labelled "the dismal science," and some figures sent me recently by the Food and Agriculture Organization (FAO) of the United Nations make some dismal reading. The publication is entitled, "The State of Food and Agriculture 1972" . . . presenting figures on the world in general, and various regions and nations in particular.

Here are some quotations from it, beginning with one concerning Western Europe:

"In general, the agricultural sector suffered in comparison with other sectors of the economy, as farm production costs, affected by inflationary pressures, increased more than payment received. Public authorities have taken different measures to improve the incomes of farmers whose purchasing power was increasing little, if not diminishing."

"In Canada, the general level of prices received for farm products was again lower in 1971, while that of prices paid continued to rise."

"The general level of prices received and paid by farmers was higher in the United States for 1971; the increase in the index of prices paid was, however, about two and a half times as great as that in the index of prices received."

"The index of prices paid by Australian farmers continued its long-term upward trend during 1970-71, rising by about 5 percent; wages, prices paid for services, and overhead items again rose fastest. The index of prices received by farmers averaged lower for the fifth consecutive season."

"The index of prices received by New Zealand farmers averaged slightly higher in 1970-71 as the modest upward trend of recent years continued. However, inflationary pressures caused the level of prices paid by farmers to rise more sharply."

About South Africa, the report commented:

"Although 1970-71 gross farm income was slightly above the record level of 1967-1968, net farm income is estimated to have been about 5 percent lower, as the volume of inputs used was larger and prices for the requisites were higher."

It appears that American farmers have a lot of company around the world in terms of the squeeze between sticky farm prices and escalating costs . . . in fact, this is true of every "developed" country.

I think of these figures when I hear of a northeastern dairy cooperative actively slashing at the membership flanks of another cooperative, thereby diluting total farmer bargaining strength. Farmers over the world, but especially here in

the U.S., are divided and unable to muster the bargaining muscle needed to provide them with equality in the marketplace.

Will the traditional independence of farmers create a situation where the FAO report on agriculture will read pretty much the same for the rest of this century?

REPORT ON CHAVEZ

I have in my possession a document entitled "The Report of a Fact-Finding Committee of the Arizona Ecumenical Council." It's a report on the dispute between the United Farm Workers and Arizona growers . . . drawn from 223 personal interviews with growers, workers, clergy and others.

Among other items, it lists these conclusions:

"The evidence in this report indicates that most of the farm workers interviewed would prefer not to join the UFW."

"Farm workers in Arizona do not feel abused or treated with disrespect or cheated. They say they get along well with management."

"Many growers (union and non-union) are critical of the UFW. The UFW is critical of all growers who do not have UFW contracts. The main body of farm workers does not seem to be interested in, or involved with, this in-fighting. Their stated concerns are: 1. Protection of their personal freedoms, including the right to secret elections regarding the union, 2. An improved annual income."

"As some farmers err, so do some labor leaders. The peace, love and non-violence taught in the Farm Worker (UFW) Mass is not always practiced on the picket line."

It's a study done by a committee involving representatives of several churches . . . Baptist, Roman Catholic, Disciples of Christ, Lutheran, United Church of Christ, Presbyterian, and Congregational. The committee report was approved by the broader Council.

For this in-depth appraisal of the problem, send (three dollars each) for a copy of the report to: Arizona Ecumenical Council, 10 East Roanoke, Suite 23, Phoenix, Arizona 85004. If your mind is already made up, and the facts would only disturb you, then continue to accept at face value the shallow misrepresentations that have up to now been typical of this controversy.

FOR GOODNESS SAKE!

Once upon a time, in the far-off land of New Yoke State, the governor increased his budget allocation to the Goodness Program by 50 million dollars. Those who made their living from the Program immediately joined together to denounce the governor, and to petition the Legislature to reassert its lost authority and realign the state's priorities . . . with goodness naturally at the top of the list.

The Assembly Appropriations Committee, which obviously couldn't be penny-pinching with anything like goodness, decided to add another 50 million dollars. Telegrams and letters flooded in, and a group of legislators formed to dramatically announce that they will demand justice before the entire Assembly. They successfully exhort their colleagues that a 200 million dollar increase will certainly be twice as good as 100 million, the entire deliberation taking place under the eyes of earnest beseechers from an organization called "Citizens for Goodness" who fill the corridors and galleries.

The Senate, to prove that it favors goodness even more than the Assembly, adds another 200 million . . . finally compromised in conference to 300 million above last year's budget figure. The governor, appalled at the prospect of a horrendous deficit, vetoes the bill . . . and a new bill appropriating money for goodness sails through in the closing moments of the session at only 250 million above last year's figure. The legislators and the governor breathe a sigh of relief, and the figure goes into the total to be wrung from the taxpayers.

But the goodness-promoters are outraged, proclaiming that the entire government performance has been an unmitigated disaster. "We shall become more militant," they cry, "to force the realignment of priorities to meet the real needs of society." Annual dues paid by members of "Citizens for Goodness" are tripled, and its leadership pledges to create a gigantic war chest to promote the fortunes of its political allies, and to defeat anyone with the temerity to vote for the piddling increase of 250 million.

The setting may be fictional, but the message is typical of our political process. "Goodness" could be education, welfare, highways, or any one of the dozens of other programs promoted by pressure groups. Small wonder that taxes soar ever upward!

EMPIRE FARM DAYS

It's been decided to hold the 1973 Empire Farm Days at the Cornell Research Farm south of Dryden, New York . . . the same site as in 1972. The leadership of the New York State College of Agriculture and Life Sciences were pleased with this year's event, and the feeling was mutual on the part of most everyone who attended, or exhibited.

Mark your calendar on at least one of those days for getting acquainted with the latest developments in agricultural techniques and equipment.

DIRT CHEAP

Sometime when you're thinking about food prices, go down to the store and price five-pound bags of flour, cornmeal, and potting soil. You'll be amazed to find that the cost of potting soil per pound is about the same . . . or more than . . . the price of the two food items. Then remember that farmers receive for their grain only a fraction of the total price of the flour, and it becomes clear that farmers sell some of their products dirt-cheap.

Amidst all the furor over rising retail food prices, never forget that U.S. citizens spend, on the average, less than 16 percent of their incomes for food. Furthermore, the cost of food in terms of the hours of labor required to buy it make food one of the best deals around!

MERRY CHRISTMAS

There is much in the world over which to sorrow . . . as there has always been. But there is also much about which to be joyous . . . as there has always been.

All of us at *AMERICAN AGRICULTURIST* wish you and yours a joyous holiday season, and a good year ahead.

THE PASSING PARADE

The farmer's wife was a notorious backseat driver . . . and seemed to delight telling her husband every turn to take.

One day, though, she was driving in a city when she got caught in a massive traffic jam.

"What'll I do?" she wailed to her husband.

"Just get in the back seat," he replied calmly, "and it'll all come to you."

American Agriculturist, December, 1972

Food For The Spirit



by Robert L. Clingan

An older man, speaking to some members of a younger generation, was recounting a disastrous experi-

Dates to Remember

Dec. 4-5 - Cornell Seed Conference, Cornell University, Ithaca, NY

Dec. 8-9 - Annual Meeting Empire State Honey Producers' Association, Gotham Motor Inn, Syracuse, NY

Dec. 9 - Registered Hereford Heifer Sale, Sales Pavilion, Cornell University, Ithaca, NY

Dec. 10-14 - Annual Meeting American Farm Bureau Federation, Convention Center, Los Angeles, CA

Jan. 4 - Annual Meeting Western New York Apple Growers, Sheraton Inn (near airport, 1100 Brook Ave.), Rochester, NY

Jan. 8-12 - Pennsylvania Farm Show, Farm Show Building, Harrisburg, PA

Jan. 10 - Annual Meeting NYS Agricultural Society, Albany Hyatt House, Albany, NY

Jan. 14 - National Sale International Maine-Anjou Association, Denver, CO

Jan. 15-19 - Beef Cattlemen's Short Course, Morrison Hall, Cornell University, Ithaca, NY

Jan. 24-25 - NYS Horticultural Society Meeting Western New York Area, War Memorial, Rochester, NY

Jan. 30-31 - NYS Horticultural Society Meeting Hudson Valley Area, Granite 2 Resort Hotel, Kerhonkson, N.Y.

Feb. 6-8 - National Dairy Housing Conference, Kellogg Center for Continuing Education, Michigan State University, East Lansing, MI

Feb. 12-15 - International Snowmobile Congress, Saulte Sainte Marie, MI, and Saulte Sainte Marie, Ontario, Canada

Feb. 14-15 - Dairy Farmers Seminar, Highpoint Motor Inn, Chicopee, MA (Rt. 33, Exit 5 of MA Turnpike)

Feb. 20-21 - Annual NYS Processing Vegetable Conference, Sheraton Motor Inn, Canandaigua, NY

Mar. 6-8 - Northeast Aerial Applicators Conference, Holiday Inn, Ithaca, NY

Mar. 22 - Agricultural Leaders Forum, Cornell University, Ithaca, NY

Mar. 26-28 - Cornell University Waste Management Conference and Fourth National Symposium on Food Processing Wastes, Syracuse, NY

Mar. 29-30 - New Hampshire Poultry Health Conference, Memorial Union Building, University of New Hampshire, Durham, NH

Apr. 8-9 - Annual Central New York Maple Festival, Marathon, NY

ence in which all the results seemed to spell failure. With a smile, he said, "I had to charge it up to experience."

The capacity to charge our mistakes to experience is one mark of a mature person. This ability gives us the image of a person who is still "in charge" and "on top of it," even in a series of events some men would call the very opposite of success.

Men who engage in scientific research know this. Some facts that go together seem more than coincidental, suggesting to the imagination of the research scientist a theory which has to be tested before it becomes known as a law of nature or science. In the tests or experiments that follow, each "no" is just as important as the "yes" that supports or validates a theory. All the results

of a well-planned and well-conducted experiment are to be charged to human experience, and add to the knowledge of man about his world.

Failure

Not long ago, a young man told me his last three years had been a failure. He had made what he considered a wrong employment choice. The management where he worked had made many mistakes. Because of mistake after mistake, he felt these three years had been futile.

On the contrary, he should have learned from every mistake . . . his own and those of the people around him. All that he saw or engaged in that had proved wrong should have been charged to experience.

Mark Spitz won seven gold medals

at the Olympic Games in Munich. In a television interview, he described his earlier disappointments in the previous Olympics at Mexico City.

In comparing the two, he described how he moved from an experience of disappointment to one of achievement and reknown. He said, "I programmed my failures into successes." Here was one athlete who had learned how to chalk up his failures, allow them to contribute to his experience, and lay a foundation for his final success.

All of us make mistakes. Few of us have the attitude that allows us to accept as experience something that persons with less insight would only label as failure. Have you learned to charge your failures to experience?

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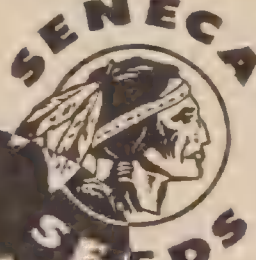
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Gayway Farm Notes

by HAROLD HAWLEY

RAISING OUR SIGHTS

There was a summer back during my youth when a man for whom I worked had the usual cows and crops, plus some vegetable or truck crops. The vegetable crops always seemed to need weeding so whenever there was a break in the other work, guess who was on his knees pulling weeds. It wasn't all that tough a job except that it sure was lonesome, tedious work . . . far less interesting and glamorous than mowing hay or "squaring out" a load of loose hay ahead of a hay loader.

One hot, sticky day when both the work and the mosquitoes were taking their toll, the boss came over to see how things were progressing. I expressed less than full enthusiasm about the entire situation and he gave me a little piece of that old fatherly advice which is always supposed to have the magic ingredient to shape the mind and character of the young. Said he, "Don't look up and worry about how far it is to the end of the row. Just dig in and do the job where you are and the end of the row will soon take care of itself."

The longer I live the more convinced I am he was as wrong as sin. Too much of our time is spent digging in where we are, and too little thought given to where we are going or what are our real goals. Sure, each job and each day's work has to be done well enough to meet some kind of standards, but it doesn't follow that stringing together a whole lot of busy days or years is necessarily going to bring us out at some lofty rosy pinnacle either of success or satisfaction.

Objectives

What may be needed far more for most of us is the identification of some objectives up there toward the other end of the row. Once those goals are set we can dig in and work toward them.

Possibly to be more specific, I guess I'm trying to say that I think an awful lot of people are just doing each day's work as it comes without having ever really decided what else they want out of life. Shouldn't there be definite provisions for some planning as a family? Like how much time will be taken for vacation each year. Sure, it may be necessary to fit the vacation plans into the work schedule but unless there are plans there may very well be no vacation.

It likewise seems to me that there should be a meeting of minds within a family about time off for the kids to be part of the activities at school and 4-H or whatever. Again it may be necessary to do a little compromising, but most boys who want to stay for football practice will be willing to help out at some other time if the whole problem is dis-

cussed at a family council ahead of time.

Speaking of these kids, which should be the best crop grown on any farm, I'm one of those who believes very strongly that not all of them should be urged to go to college. For a lot of youngsters there is a more satisfactory way to get the kind of training and skills they will need for the particular kinds of occupations they may select or have available to them.

By the same token, however, there would seem to be no reason why any boy or girl who has the desire and the intellectual capacity and curiosity to go to college should not go. This again goes back to a meeting of minds and common goals on the part of the whole family.

The multitude of ways that some of our young folks have of getting through college would make an exhaustive list. Loans, scholarships, part-time or full-time jobs away from home for a year or two before college, as well as an endless variety of supportive activities while attending school and during vacations, are all within the reach of the ambitious youngster. But the family needs to be with and behind him or her offering encouragement and guidance even if they have no financial assistance to offer.

All this is a long, roundabout way of saying we should each have some goals in life for ourselves personally and as families. These will vary from home to home but I'm satisfied they all ought to include enough time off . . . and a willingness to spend enough of the earnings . . . to insure that some of the rewards are taken as we go through life. Hindsight is a maker of 20-20 vision and looking back, we can see how we might have apportioned our time a little differently.

A BAD SITUATION

Corn in our area has not been a good crop this year. Late planting, wet, cool, cloudy days and cool nights plus some early killing frosts, spelled trouble in big letters. With both the stalks and ears smaller than normal, it took a lot of acres to fill silos. This used up some of the acreage that normally would have gone for picking corn.

For the first time I can remember, there was a reasonably wide-scale traffic in corn for silage. Anyone with a field of corn that either didn't get quite ripe or was going to be pretty high in moisture for awhile figured to be better off selling the whole crop either chopped or standing.

Prices and terms! They sure ran the range. Most anyone knows or can soon find out the market for ear corn or shelled grain. No one knew what his silo corn was worth per

(Continued on next page)

ton, because price obviously varied a lot depending on maturity.

Then, of course, there was the question of yields. Very few neighbors had any way of weighing the loads. If a whole silo was to be filled the tonnage could be estimated from the silage tables, but in many cases all that was needed was to put the last 10 or 15 feet in the top of the last silo. It was anyone's guess as to how much settling had occurred and how much the remaining space in the top of the silo would hold.

Possibly even tougher was to sell a field or part of a field standing with everyone estimating the yield per acre or total yield from the field. But the job got done, I suppose, mostly because everyone involved was trying to be fair and wanted to arrive at a mutually satisfactory answer.

TIME'S A-WASTING

One of the more important pieces of legislation passed in this state in recent years provided for the formation of agricultural districts within the state. Within such districts... which could be formed and approved only if the farmland within the boundaries was indeed good viable productive land worthy of being retained in agriculture... the ability to continue farming under some special ground rules would be guaranteed for a period of eight years. After that time, a review would be necessary.

Some districts have already been formed and applications for approval of others are in the works. In strictly rural areas where there is not yet much difference of opinion about the best use of the land, there has been a minimum of opposition to the formation of districts. When a group of farmers propose the formation of a district in which a housing development has started or is proposed, it's not quite so simple.

The law provides that if a district is approved, the frontage (except for the house and lot of the farms) cannot be taxed for the water and sewer lines that may need to be run along the roads to service the new non-farm homes. Also, the farmland in the district would be assessed and taxed on the basis of its value as farm land, rather than on the basis of its potential value as building sites. Thus, non-farm people within the district feel they may end up paying more of the costs of local government than they would if the district were not formed.

It should be added that many non-farm rural residents are among the strongest supporters of the agricultural district idea because they are anxious to preserve some of the rural nature of the area in which they live. That was one of the reasons they moved there in the first place. In spite of this, it is just a fact of life that if farmers wait until something different is about to happen in their community it will be just that much tougher to get a district approved.

Highway developments, transmission lines, residential or industrial developments can be proposed and become a reality in spite of valiant efforts by those who will be affected if their battle starts too late. That old line about a stitch in time was never more true than in connection

with getting an agricultural district formed.

TO ONE AND ALL



Over the years, in various places and situations, I've met a lot of American Agriculturist readers. Many of you have commented about matters on which you held different opinions than mine — and this has been fine. In all cases it has been a real pleasure to get to meet and know you, and to exchange viewpoints with you.

Thousands of other readers we have not met are surely also friendly, stimulating people. So to all of you, whether we've actually met or not, we here at Gayway Farms extend our sincere best wishes for a joyous holiday season.

LET'S TELL THEM!

In other years when I've been a little more active and had a greater stake in the various organizations, I've tried to catch at least part of their annual meetings. Most years the general objective is about the same — to inform the membership how the organization is doing. Also various speakers are invited in to keep the membership abreast of

thinking in the related fields of interest. Last, but most important, is the policy-making period when the delegates decide the course their organization will try to follow.

This year we missed most of the meetings but had more time to read the papers; the amount of coverage was almost nil. This may be par for the course. Other years, seeing the show first-hand was all the information I needed. Now I realize it's a lead pipe cinch that if non-farm folks are to know us and understand our objectives we need far more publicity than we are getting. I'm sure the house organ of each group will carry stories, pictures and a good report of the annual meeting back to the membership, but let's tell the rest of the world a little about it too!

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Asa Cheney is proud of this red oak . . . 60 feet to the first limb, 100 feet total height, about four feet in diameter (DBH), and probably 185 years old. There are other magnificent trees in the Cheney woodlands.

County agent Carl Pearce (right) joins Asa in guessing at tree height.

HISTORIC FARM

John Cheney and his father, Asa, operate a 370-acre farm overlooking Chautauqua Lake . . . and rent 100 acres more. The Cheney family first came to these parts in 1807, and bought land then from the Holland Land Company at two dollars an acre.

There is a 47-cow dairy herd on the farm now, but forestry has long been an important second enterprise. The Cheneyes hang 2,300 buckets for collecting maple sap . . . boiling it down in an evaporator set up under an overhanging roof at the barn.

"We had a sugarhouse in the woods that was getting in pretty bad shape," John comments. "By setting up on a portable basis at the barn, we now have hot water and electric power available . . . as well as saving the investment in a new building." After the syrup-making reason is over, the evaporator is dismantled and stored.

In 1972, the Cheneyes hung 700 buckets in the woods . . . 1,600 on trees along the roadsides. They generally find a higher percentage of sugar content in the sap from roadside trees.

The farm boasts some of the finest timber land in western New York . . . land that is unfortunately being jeopardized by the proposed right-of-way for construction of the Southern Tier Expressway. — G.L.C.

WHY BIG?

In our highly-competitive society, it's understandable that most articles in farm magazines are about farmers growing in size of business . . . higher profits, greater efficiency, more cows per man, etc. But pushing hard can take its toll . . . and now and again it's refreshing to visit with a farmer whose array of priorities places enjoying life at the head of the list.

Frank Sheldrick's farm is located, appropriately enough, on the Pleasant Valley Road near Orwell, Vermont. It's not a small one . . . 245

acres, with 130 tillable, but it's considerably smaller than the 100-cow place he once operated at Salisbury, Vermont. "We had five tractors there," Frank recalls, "and we had to send 'em to the shop to be repaired for the big-dollar charge. Now, I repair my own."

Goal

Frank now milks 33 cows, and has as his goal selling 16,000 pounds of milk per cow annually. He enjoys being able to work with cows as individuals again, instead of mass-producing milk.

"We always hunted deer every fall, but now I also have lots of time to go snowmobiling," he comments. "I haven't got anything against a bit outfit . . . I just regret staying with one as long as I did. My nervous system just doesn't get along well with the tremendous debt loads that usually go with great big farms."

Gardening is a rural "plus" once enjoyed by farmers, but abandoned by most under the pressure of staying ahead of a growing business. Frank thoroughly enjoys being able to use a hoe in his sizable garden without feeling guilty that many thousands of dollars worth of equipment is sitting idle. — G.L.C.

MANURE POND

Thomas Howlett and his father, Carey, operate a 140-cow farm near Bridport, Vermont.

Recently, they had a contractor build a manure-storage pond measuring 140×225×12 feet deep. It's designed to hold the manure produced over a 12-month period. Water from the milking parlor and milkhouse area also goes into the pond. Manure will be pushed into the pond with a tractor-mounted scraper . . . dropped from a lip projecting out into the pond.

It was designed by technicians



County agent Lucien Paquette takes a look at the Howlett pond site.

from the Soil Conservation Service in Addison County, and was 50-percent cost-shared by REAP. A requirement for REAP funding is that the dairyman involved agrees not to spread manure on frozen ground.

Pondering

Why did the Howletts go this route, instead of to an underground tank, for example? "We explored the alternatives," Tom comments, "and found most of them darned expensive! Manure from a freestall barn is pretty sloppy and won't stack well . . . underground concrete tanks cost a fortune to get the volume we need. In terms of cost, and flexibility of operation, the pond looks like the best arrangement for us."

The Howletts plan to pump manure out by using a Cristofulli pump that backs into the pond, and operates immersed. Power is delivered by a long pto shaft. "Agitating the slurry may be our biggest problem," Tom admits, "but we think it will work out." He expects to spread manure with two tank spreaders, each holding 1,400 gallons, during the period before fall plowing and after corn harvest.

The herd at Champlainside Farm is a purebred one, and the Howletts have sold a young bull to Eastern AI for young-sire testing. An outstanding cow in the herd has been bred to an ABS bull in the planned-

mating program to develop promising young sires. A recent DHIC report shows a herd average of 14,553 pounds of milk, 570 of fat. — G.L.C.

OYSTER FARMER

Using 3,000 tons of lime a year would indicate a farmer with substantial acreage . . . but knowing that the land involved is **under water** might be a bit mystifying. Add to the mystery the fact that the lime in question is **quicklime** and you'll be left guessing about just what kind of farmer has such an unusual cropping program.

The farmer is J. Richards Nelson, president of Long Island Oyster Farms, Inc. . . . headquartered at New Haven, Connecticut. His farm involves about 22,000 acres of oyster beds along the eastern and northern shore of Long Island and the Long Island Sound shore of Connecticut. He puts granulated quicklime in the ocean water over the beds to kill the starfish that threaten the lives of the oysters.

These oyster beds, although all under ocean water, are owned in a similar fashion as dry land . . . and are bought and sold, mortgaged, and recorded in official registries.

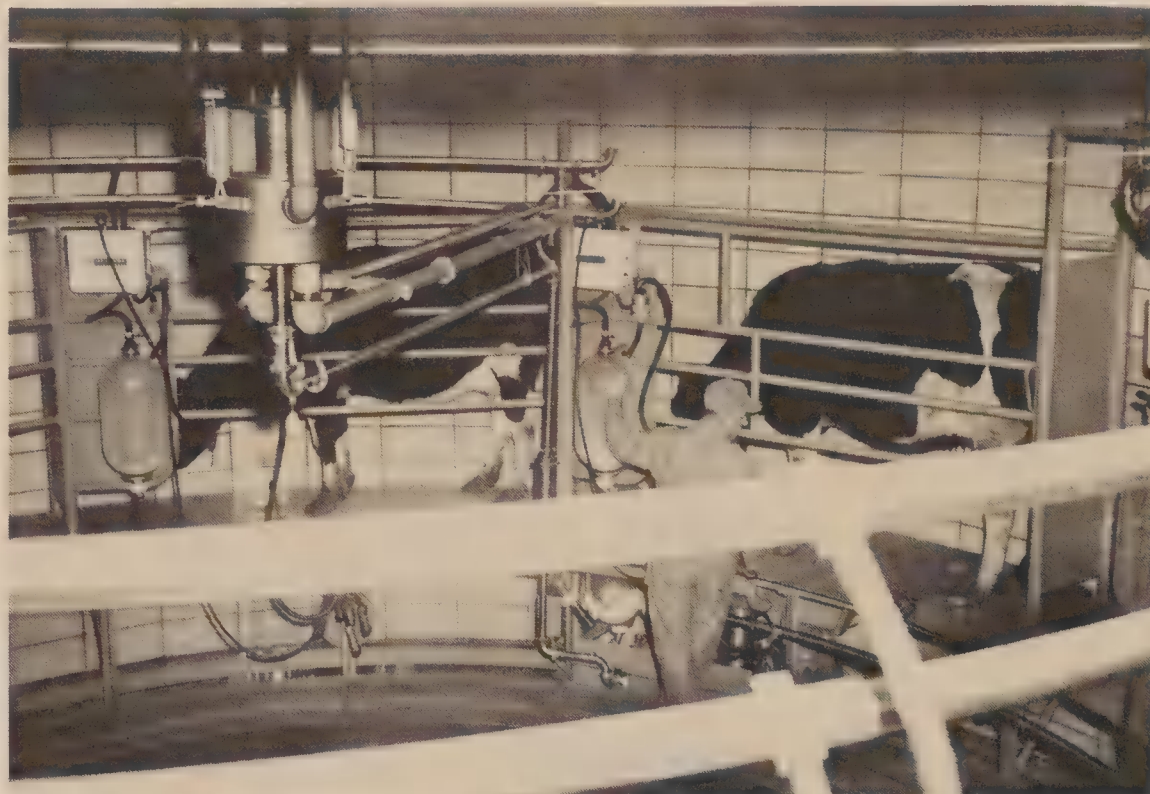
The oyster seed crop is started in Connecticut waters, but the maturing beds and "cropland" are in the unpolluted ocean area near Long Island. U.S. Food and Drug regulations require that oysters and clams can only be marketed from waters of a bacterial quality equal to drinking water. Experiments are being conducted to learn how to take advantage of using water heated by electric-power generation in the growing of juvenile oysters.

"We discard 95 percent of the juveniles," Nelson reports, "in the microscopic stage. The water they're in is filtered, and only those used that won't pass through the filter . . . meaning that they're the fastest-growing ones."

As with all of agriculture, the technology associated with oyster production has become increasingly sophisticated. But even the wonders of modern science are not able to create salable pearls from American oysters. "The pearls produced in American waters just aren't lustrous enough to be used for jewelry," Nelson reports.

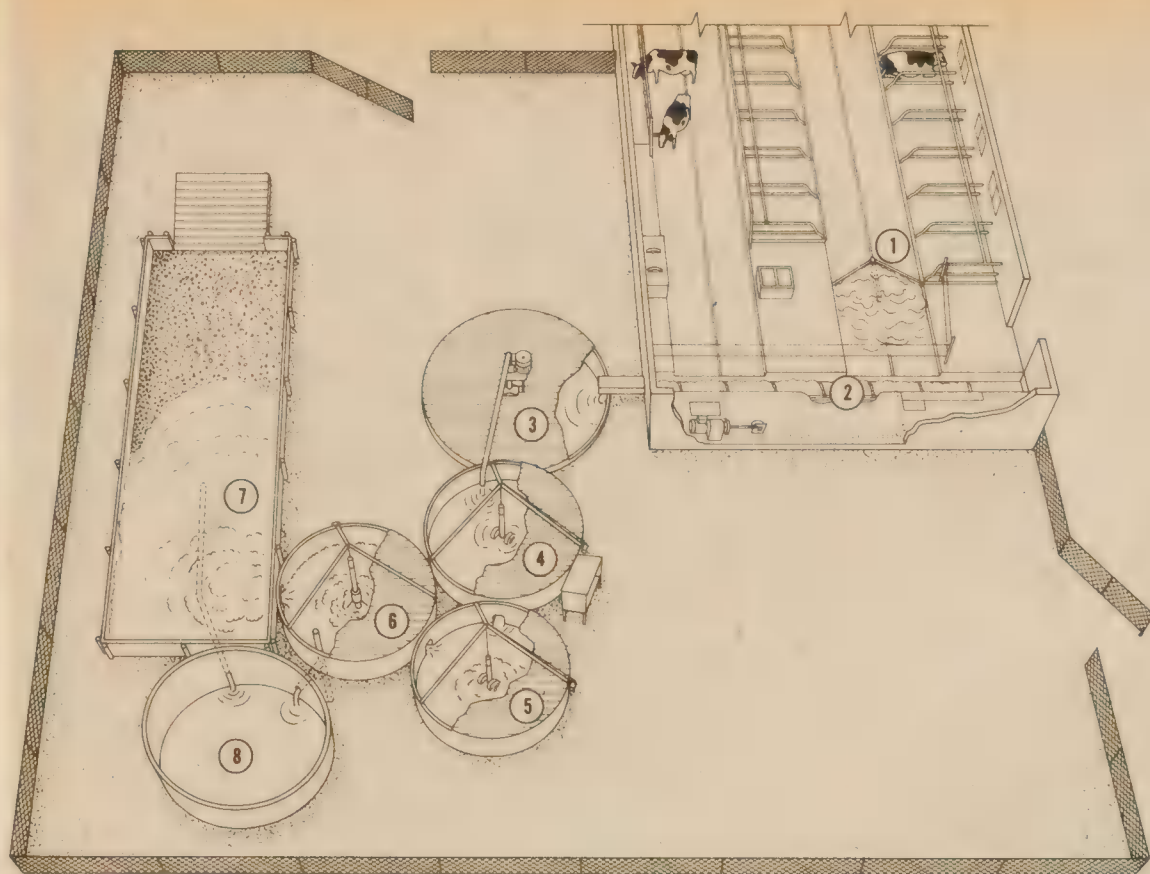
And so he concentrates on growing the finest oysters for the table! — G.L.C.

American Agriculturist, December, 1972



Alan Weatherby of Trumansburg, New York, likes his new round milking parlor (Dairy-Go-Round, made by Circle Milking Corp., Jamestown, North Dakota). It's equipped with a De Laval 200 milker.

No grain is fed in the parlor where 90 cows can be milked in an hour and ten minutes. Visitors listed in the parlor guestbook come from many states and foreign countries. The picture was taken from an observation platform provided for visitors.



This drawing of a portion of the De Laval Research Farm shows the Delta-Matic equipment moving manure from the alleyway (1) toward the cross conveyor (2), and into the collecting pit (3). It is homogenized there, then pumped into the insulated Licom system tanks (4 & 5), each equipped at the center with a Centritator (including foam cutters).

The flotation tank (6) is equipped with a Centritator without foam cutters, so solids-carrying foam spills out into a drying bed (7) . . . while liquids go on into a storage tank (8). For experimental purposes, a complete system was installed here, but only a portion of the Licom system may be needed on many farms.

A new how, brown cow

De Laval has developed a unique waste disposal system . . .

THE De Laval Separator Company has developed a waste management system which it believes meets the environmental requirements of the future. Handling manure on the dairy farm used to involve the simple procedure of spreading it on the premises whenever and wherever convenient . . . but the recent upsurge in ecological interest has created conflict involving odor and runoff.

De Laval development engineers have used the old principle of aeration, but have arranged it in a new way . . . and incorporated some innovative equipment and techniques. The system has two parts . . . the Delta-Matic Manure Removal System that removes manure and urine from a free-stall barn, and the Licom Waste Treatment System which processes the waste to a socially-acceptable product.

Scraper

The Delta-Matic equipment features a time-clock-controlled scraper that automatically brings manure to a cross-conveyor, and thence to a collecting pit equipped with a device that homogenizes the slurry as well as pumping it out at designated intervals. From this point on, a great deal of flexibility exists as to what happens to the manure . . . and the discharge from the milking parlor and milkroom, which also is piped to the collecting pit.

The manure can be pumped direct from collecting pit to a spreader . . . or it can go into digestion tanks . . .

one or more of them, depending on the degree of liquid composting desired, and on the size of herd.

Licom I, a one-batch reactor system, will handle a week's manure accumulation from about 80 cows and render it free of odor and pathogenic bacteria . . . ready to spread on land.

Licom II has two or more reactor tanks and will handle the manure from up to 160 cows, also creating odorless and pathogen-free material.

Most Rigid

Licom III will be needed only by dairies required to meet the most rigid ecological requirements. It separates the liquid from the solids . . . and with additional chemical treatment, the liquid portion from this system can meet some water-standard requirements.

A device called a Centritator, developed and patented by De Laval, forces air into the manure slurry in the reactor tank(s) . . . and keeps foam within manageable limits by the action of accompanying foam cutters. Foam is an inevitable result of aeration devices, and will cover the area if not controlled.

De Laval expects to market the Delta-Matic System by mid-1973, and the Licom System by the end of 1973. Both can be seen in operation at the 225-acre De Laval Research Farm not far from Poughkeepsie, New York.

For additional details, contact Richard A. Kellow, De Laval Separator Company, Poughkeepsie, New York 12601.



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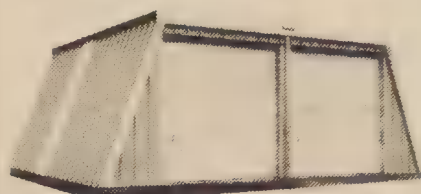
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Dollar Guide



GOVERNMENT GRAIN will be available in many northeastern counties during winter feeding season. Corn will be 93¢ per bushel (\$33.21 per ton), and oats at 48¢ per bushel (\$30 per ton) for "primary" livestock, a bit higher in cost for "secondary" livestock.

Grains can be fed in large amounts to dairy cows, but provide at least one pound of hay equivalent per 100 pounds of body weight ... or butter-fat depression can be serious.

"**TAX REFORM**" may change income-tax laws in next few years. For now, though, remember you can deduct as depreciation up to 20 percent of cost of capital purchase in the year purchased ... and don't overlook the 7-percent investment credit allowed in addition to the high first-year depreciation.

FORAGE AND GRAIN SEEDS likely to be in short supply by spring, says Vermont agronomist Win Way. Order seeds early, he advises.

MILK PRODUCTION in the U.S. was up 2 percent for first 9 months in 1972 as compared to '71. In Northeast, though, milk production down about 1 percent, and expected to stay below year-earlier levels this winter because of poor-quality roughage.

INCOME LEVELING is good way to minimize income taxes for farmers. To cut this year's reportable income, buy some or all of next year's feed, seed, fertilizer, etc. Delay sales into next taxable year, or sell on deferred sales contract with payment next year.

HOG CHOLERA has flared up again, and USDA has declared national emergency because of it. New Jersey is only northeastern state reporting cases of disease, but all hog producers are warned to be alert to danger.

IRISH POTATOES in U.S. are being assessed 1¢ per cwt. for spud research and promotion. Producers can apply for refund ... or information ... to National Potato Promotion Board, 1313 Tremont Place, Suite 8, Denver, Colorado 80204.

OPINION POLL of 2,735 Midwest farmers by Doane Agricultural Service shows that three-fourths favored the present farm program (acreage set-aside). Farm programs not likely to see major changes in next few years.

FREIGHT RATES on grain create a disadvantage of \$7 per ton for Maine farmers as compared to those in Georgia. Unit trains (all cars carrying one cargo) are being considered in attempt to lower cost of shipping grain to New England.

STAR FARMER of U.S. is David Galley of Walton, New York ... and Northeast scored again in having national Star Agribusinessman Edward Higley of Brattleboro, Vermont.

WAGE-PRICE CONTROLS are likely to continue even beyond present law which expires next April ... says Price Commission boss C. Jackson Grayson. He verbally beats on rising food prices ... farmers will have to fight to maintain price control exemption for raw farm products.

DRAINAGE OF AGRICULTURAL LAND is title of new SCS-authored book for planning, design, construction and maintenance of drainage systems. Available for \$7.95 plus postage and handling from: Water Information Center, Dept. T, 44 Sintsink Drive East, Port Washington, New York 11050.

PLASTIC BUNKER-SILO covers are well worth the money, report USDA researchers. Plastic covers not only prevent visible spoilage, but also losses in dry matter below the surface of ensilage.



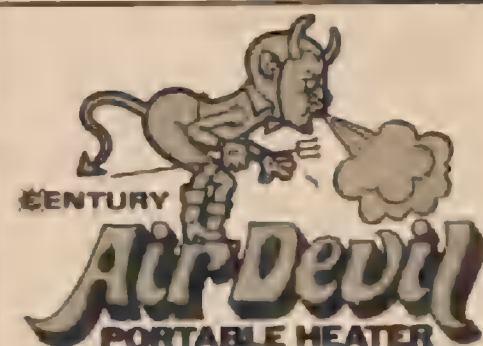
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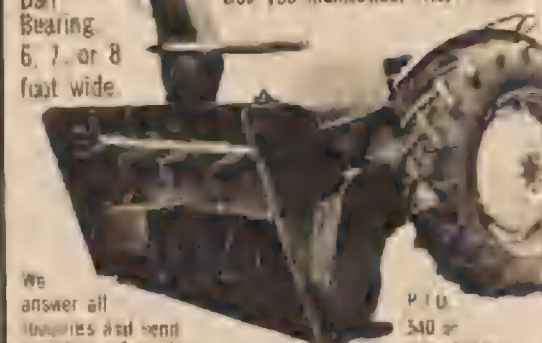
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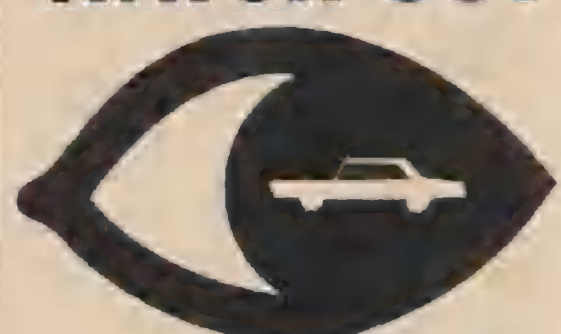
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Everyone dreams of going to Hawaii some day, and December is a perfect time to dream of sunny skies, beautiful tropical flowers, sandy beaches, and all the other things for which our 50th State is famous. Dreaming is fun, but actually seeing Hawaii is a hundred times better! We invite you to join our **Springtime Holiday in Hawaii** from **March 10 to 22** and see for yourself what our Paradise of the Pacific is really like. You'll always be glad you did!

Our tour escort will meet us in Chicago, where we'll board a huge jet and follow the sun to Hawaii. Before you know it, we'll be landing at Hilo on the **Big Island of Hawaii**.

We begin our visit with an all-day trip through volcano land, a perfect way to learn how the Hawaiian chain was formed. We'll visit Hawaii National Park, walk through the Thurston Lava Tube, see Halemaumau Firepit and have lunch at Volcano House on the rim of Kilauea Crater. Here you can see steam rising from cracks in the earth's surface in almost any direction you look. On our way back to Hilo, we will also see the famous and unusual black sand beach.

The next day we drive through the vast Parker Ranch (300,000 acres) on our way across the island to Kailua on the Kona Coast. We will stop at beautiful Akaka Falls, highest in the state and higher than Niagara, and also visit an orchid nursery where many different species of this exotic flower are grown.

A short drive from Kona will take us to the City of Refuge, the site of Captain Cook's Monument and a coffee mill where the world-famous

Kona coffee is produced. Also, at Kona is supposed to be some of the finest big game fishing in the islands. Our tour escort will be glad to make arrangements for anyone who wishes to try his luck.

Next, we go to Maui, the Valley Isle. We'll see "the Needle," a fern-covered volcanic freak rising more than 2,000 feet above the valley floor, and visit Lahaina, the historic whaling port where much of the movie "Hawaii" was filmed. Lahaina boasts a huge banyan tree, said to be second largest in the world.

On the Garden Isle of Kauai, we take a boat trip up the Wailua River to Fern Grotto State Park. Along the way native singers will entertain us and tell legends about the river and Kauai.

On another day we drive to Waimea Canyon, Grand Canyon of the Pacific. We'll also see Napali Cliffs, Valley of the Lost Tribes, and then drive back to our hotel through a colorful landscape of flaming bougainvillea, spiky pineapple fields, and slender nodding palms. Our hotel, by the way, is located on Kalapaki Beach, one of the finest in the islands.

There are so many exciting things to see and do in and around Honolulu on the **Island of Oahu** that it is possible to mention only a few. Our scheduled sightseeing will include Iolani Palace, Punchbowl Crater, a cruise through Pearl Harbor and a circle tour around the island with stops at Sea Life Park and the Polynesian Cultural Center.

When you have some free time, there's the Ala Moana Shopping Center and International Market Place for browsing and shopping, the Kodak Hula Show, Hawaiian Village of Ulu Mau, the Wax Museum, the Dole Pineapple Cannery tour, and just dozens of other interesting and fun things to do.

Gordon Conklin, Editor
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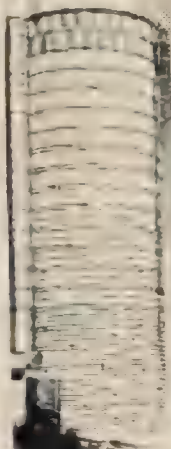
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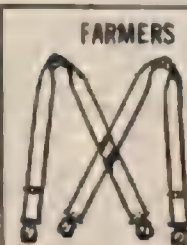
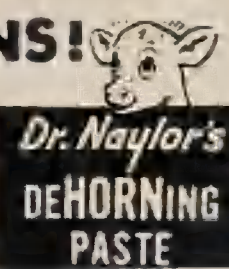
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Doc Mettler comments on:

Being a better cowman



SOMETIMES as I sit in church it is difficult to keep my mind from wandering. I hear the beautiful voice of a young girl singing "Silent Night" as she plays her guitar. I know most people like it, because some of them even have tears in their eyes, yet some think the guitar is an inappropriate musical instrument for the church. If they only knew that Father Joseph Mohr's words for this beautiful carol were first put to music by Franz Gruber on a guitar in 1819, I wonder what they would think?

Then I get to thinking about the scripture readings and the other carols. They all mention shepherds. In those days, the shepherds must have taken care of cattle as well as sheep. As good as these men must have been, what a job they could have done with a little penicillin and thibenzole!

Hunger

Now the sermon has gotten around to the hunger in the world. I wonder if I could ever give a sermon. It could be about how the ruminant, by converting fiber to protein, can feed this world.

We've got to be better shepherds... or rather, cowmen... to do this, though. Taking care of a herd of cows in a modern free-stall setup is a tougher job than those shepherds in the Old Testament had. Or is it? Well, at least we could learn a little from our modern shepherd on how to become a better cowman. Shepherds have been taking care of ruminants for thousands of years.

What was the thing I learned over the years about how to spot a good sheepman? "A good shepherd never makes a ewe get up when he walks through the shed, he walks around her." This can certainly be applied to cowmen. You can't learn much from an excited herd of cows; as you move about a loose housing setup, you must move slowly.

Better Cowman

It does take a far better cowman to care for cattle in loose housing. Statistics show that most herds drop in production when they move from tie-up barns to free stalls or loose housing. Yet what about my neighbor who went from 85 cows in stanchions to 115 cows in free stalls and raised his herd average from 14,500 to 16,000 in one year? "Good cowman" is the answer.

Where most men fall down first is on feeding. It is hard to get enough feed into your high-producing cows. In herds over 150 head, dairymen can group them according to production and food need. Under that number, cows generally get a basic ration containing a minimum amount of grain or supplement. After that, cows that need more must be fed according to production in the parlor.

On top of this, my neighbor does more for the 100-pounders... those

wonderful cows putting 100 pounds or more of milk in the tank every day. He puts them into stalls in the hospital barn for a little extra grain. You are too busy? Then you won't have many 100-pound cows, either!

Heat Detection

The next weak point in loose housing is seeing heats. When you are milking, you don't have much time or opportunity to watch for heats. Cows eating do not ride much, so you have to take time to walk down through the barn and use your eyes, just as you did when they were in tie-ups.

Heat detectors, such as smeared chalk, are a help. In large herds, lock-up stanchions are a help in making observations. Most important, take some time to observe... every day, and several times a day.

Don't be ashamed to use a "clean-up bull," but be sure you split the herd to do this so you know which cows have been exposed to the bull. The clean-up bull must be disease free. Don't worry about his pedigree; only his health is important now.

Walk Slow

In a stanchion barn, you can see which animal doesn't eat, and which is constipated or has a discharge. In free stalls, you have to observe this by walking through slowly.

Here you must be like a shepherd. Get to know what a sick cow looks like. She may be just standing with her ears drooped, lying in the stalls when others are eating, or standing by the water trough playing with the water. Watch for cows breathing hard or fast, cows with running noses and eyes, and with swollen quarters.

Some observing can be done in the parlor. The cow that's usually the first through comes in last, or there's a limping cow, a swollen quarter or poor letdown. These are all signs to watch. With weigh jars in the parlor, a slight drop in milk is noticed by most men quicker than you think. Just as when daily weights used to be recorded, this is often the first sign of everything from sickness to coming in heat.

Examination

Before you desert your tie barn for a free-stall barn, examine your conscience carefully. (This sure sounds like a sermon, doesn't it?) Are you a good enough cowman to make a go of it? Don't be ashamed of a negative answer.

No one ever made any money on cows... loose or tied... without work. There might be less stooping, squatting and bending in loose housing and parlors... but if you aren't willing to spend extra hours being a "good shepherd" to your cows, you'd better continue to stoop, bend and squat... and make a profit.

Well, as I said, my mind does wander. The sermon is over and the

little girl is singing, "Let there be peace and let it begin with me." For more years than I care to think, I have ended each December article with this wish in one way or another. Again my prayer will be that by the time this is in print, we may know peace... not only in Vietnam, the Middle East and Ireland, but in our hearts.

LIVESTOCK



Short Course — The Annual Beef Cattleman's Short Course at Cornell University will be held January 15-19, 1973. Special emphasis will be given to changes taking place in the industry, particularly as regards the impact of the exotic breeds. Sessions will be held on animal health, breeding, careers evaluation, grading, and marketing. Preparing animals for shows and sales, as well as general management practices, will also be explored.

For more information, contact Professor Ellis Pierce, Morrison Hall, Cornell University, Ithaca, New York 14850.

Beef Future — "What is badly needed in the beef cattle industry is a uniform collection policy to finance a nationwide program of research, education and promotion. The minimum check-off per head of beef cattle should be 25 cents," says J. C. Holbert, chairman of the Beef Industry Council of the National Live Stock and Meat Board.

Holbert notes that, with gross returns of nearly \$15 billion last year, the beef industry invested only 1/50 of a cent per dollar of sales in state and national promotion programs. With a check-off based on the same ratio to gross returns that the hog producer pays... five cents a head... the 35 million finished cattle sold last year would have provided \$10.5 million at 30 cents a head.

"Cattlemen can't afford to be complacent about the future of their industry," says Holbert. "This increased funding is needed because it's important to develop programs to prove the consumers that there really is no substitute for quality beef."

Horses — Both amateur and professional horsemen will find useful information in a new illustrated handbook describing the breeding and raising of 26 common light horse and pony breeds. Published by the USDA, the booklet tells about selecting horses, care and feeding, necessary equipment, and diseases and parasites. There are also sections on horse judging, management, horsemanship, and listings of breed registry associations and horse magazines.

Single copies of Agriculture Handbook No. 394, "Breeding and Raising Horses," are available for \$1.00 each from the Superintendent of Documents, U.S. Government Printing Office, Washington, D.C. 20402. Please use zip codes.

American Agriculturist, December, 1972

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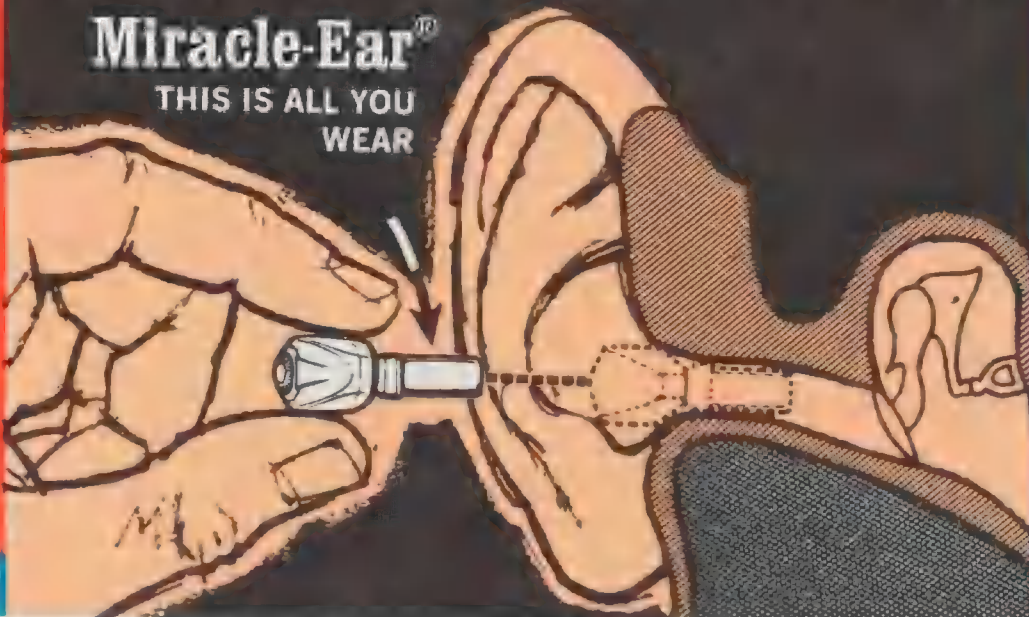


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Years to perfect . . . seconds to put on. Miracle-Ear has no tube, no wire! When you need a hearing lift, just slip it in your ear. If diagnosis*shows you have this type of loss, you may hear again clearly *and understand* what people say, even in meetings, groups, church, theater, automobile and on TV.

Your hearing may seem alive again! Miracle-Ear could be your hoped-for answer that could help change your life and that of everyone around you.

Before buying a hearing aid, find out for yourself if Miracle-Ear can work its wonderful benefits for you!



Send postpaid reply card now...no obligation whatever!

*ASK YOUR DOCTOR ABOUT DAHLBERG HEARING AIDS

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"I'M NOT DEAF!"

OUR DAUGHTER'S
GRADUATION...
I COULD HEAR BUT
I WASN'T ABLE
TO UNDERSTAND
THE WORDS



PANIC STRUCK
ME! COULD MY
HEARING BE THAT
MUCH WORSE? THE
DOCTOR SAID I HAD A
MILD NERVE DEAF-
NESS... BUT THERE
WAS NO WAY HE
COULD HELP ME.



NEXT DAY... AT A DAHLBERG HEARING AID DEALERS...

MRS. GOODWIN, THE AUDIOMETRIC EXAMINATION
SHOWS YOUR HEARING IS IMPAIRED IN THE HIGH
TONES- YOU'RE ABLE TO HEAR SOUNDS, BUT WHEN
THERE'S A LOT OF BACKGROUND NOISE, YOU CAN'T
ALWAYS UNDERSTAND WHAT'S SAID. IT'S A CLASSIC
SYMPTOM OF NERVE IMPAIRMENT-
SOMETIMES CALLED MILD
NERVE DEAFNESS

YOU MEAN
SHE'S GOING DEAF?
ISN'T THERE SOMETHING
THAT CAN BE DONE?



MOST LOSSES LIKE THIS COME ON
GRADUALLY... OVER THE YEARS. YOU
NEED HELP! AND THE MEDICAL
EXPERTS GENERALLY AGREE
THAT NO EFFECTIVE CURE HAS
YET BEEN FOUND FOR THIS TYPE
OF HEARING LOSS

YOU MEAN
IT'S HOPELESS?



IT MIGHT HAVE BEEN DIFFERENT
YEARS AGO, MRS. GOODWIN. BUT NOW,
FORTUNATELY, MODERN SCIENCE HAS CREATED
A TINY NEW ELECTRONIC DEVICE MADE TO
HELP IN MOST CASES LIKE YOURS. DOESN'T
EVEN LOOK LIKE ONE OF THOSE OLD-
FASHIONED HEARING AIDS. YOU'LL NOTICE
THERE ARE NO CORDS OR WIRES, AND
YOU WEAR IT ENTIRELY IN
YOUR EAR. IT'S CALLED
MIRACLE-EAR!



FEELS COMFORTABLE
ENOUGH. BUT IT IS
SO TINY. COULD
IT POSSIBLY
HELP?



LATER... AT THE PTA MEETING

FRED, THIS IS MARVELOUS.
I CAN UNDERSTAND
THE WORDS. IT'S THE
FIRST TIME IN YEARS
I'VE HEARD SO CLEARLY



...AND WHEN YOU GRADUATE,
BILLY, I'LL BE ABLE TO
ENJOY EVERY BIT OF THE
CEREMONIES... THANK
HEAVENS!

AND
THANKS TO
MIRACLE-EAR!



HOME THAT NIGHT...

HERE'S
E MAIL,
MOM

JUST BILLS...WHAT'S THIS?
"MILD NERVE DEAFNESS...
YOU HEAR, BUT DON'T ALWAYS
UNDERSTAND".. EXACTLY
WHAT'S HAPPENING TO ME!

GET THE FULL FACTS ABOUT

Miracle-Ear®

FREE!

MAIL THIS CARD NOW
WHILE YOU'RE THINKING ABOUT IT!
NO OBLIGATION WHATEVER

GENTLEMEN:

*Please tell me how I may be
able to hear again more
clearly in both ears without
using hearing aids that
have cords or tubes*

Your Name _____

Address _____

City _____

State _____ Zip Code _____

Am Now Using (check one)

☐ Cord Type ☐ Behind the Ear Type

☐ Eyeglass Type ☐ No Aid

I understand that mailing this card places me
under no obligation.

Tear off and mail today—no postage necessary

The Remarkable
Miracle-Ear

Could be your hoped-for answer if you can hear but can't always understand words...

Learn how you may be able to hear again more clearly . . . in both ears . . . without using hearing aids that have cords or tubes!

Miracle-Ear fits most mild hearing losses resulting from nerve impairment. Other model instruments available for different type loss or greater degree of loss. Ask your doctor about Dahlberg Hearing Aids.

Mail this card at once!

No Obligation whatever

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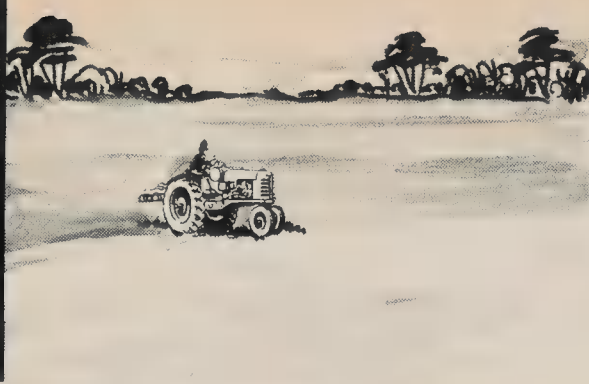
MIRACLE-EAR



P.O. Box 549

Minneapolis, Minnesota 55440

What's NEW in the FIELD



by Bill Pardee

Growing corn in '73

IT has been the meanest, cussedest year in most people's memory for growing corn! But it taught us lessons worth remembering as we plan for 1973, and for the years ahead.

First, early hybrids are **always** a better gamble than late-maturing strains. This past year underscored this point, and it's one some were forgetting. For several years we have had long falls with nearly all hybrids ripening, but 1972 brought us back to reality with a thud. A late spring, a coolish summer, a wet fall, and a freeze before corn was mature all meant poorly-developed corn in the silo, and corn too wet to harvest in the field.

Exceptions

Though 1972 was exceptional, it's not the first time early hybrids have paid off and it won't be the last. Whether you're using the New York growing-degree-day system, or basing your maturity selection on days to maturity, select hybrids just right (or earlier) for your farm. Later hybrids will cause you grief more years than they're worth.

For information on hybrid maturities, check the publication "Cornell Recommends for Field Crops," or if you're in Pennsylvania, check Penn State test results. Each of the New England states has a testing program too, so wherever you are, there's extension information available. You should also check closely with your seed corn dealer for further information on early hybrids for your farm.

Side-dressed nitrogen paid off in 1972 as heavy rains soaked our soils, eliminating most of the early-applied nitrogen. Some washed right through our soils. But worse losses occurred in soils that remained waterlogged for 4-6 weeks. Here the fertilizer nitrogen denitrified (turned into nitrogen gas), then passed off into the air. Farmers who could side-dress or top-dress with additional nitrogen were able to produce some decent corn. Those who couldn't suffered from spindly plants, poor grain fill and low yield.

This isn't the first year side-dressing has paid off. In fact, year in and year out, side-dressed nitrogen has shown advantages in Cornell trials. It consistently returns higher profit for each pound of nitrogen applied than when put on earlier. And since it's going on just when the corn plant needs it most, you can use lower

rates. This means less cost, but it also means less risk of loss of nitrogen into streams or ground water, an increasingly important point as environmentalists eye agriculture ever more critically.

Cornell results show that nitrogen losses in soil can be substantial from fall-applied nitrogen, and sometimes (like 1972) spring-applied nitrogen can also be lost. For 1973, Cornell soil fertility specialists recommend only band and side-dressed applications. They note that rates of nitrogen up to 40 pounds per acre can be applied with the planter.

When higher rates are needed, they suggest a small starter rate of 10-20 pounds of N (with phosphorus and potassium) in the planter and the remaining nitrogen put on as top or side-dress. A top-dressing of liquid or dry nitrogen should be cultivated into the soil the same day it's applied to prevent volatilization and loss of nitrogen contained in urea, a common source of N in liquids and dry fertilizers. Side-dressed nitrogen should be applied when the corn is 6-15 inches tall, usually mid-June to early July.

Plant Early

Early planting once again paid off, though it wasn't easy in '72. Those few farmers who could plant crops in early May came through smiling in fields I have seen. Their yields were good, and their corn matured in reasonable season.

The contrast is particularly strong on farms where some fields were planted in early May and others in June. The early corn was high-yielding and mature... the late corn was poor and wet. For 1973, best bet is to plan ahead, get equipment ready, and be ready to roll fast and far in the few good days we usually have in early May.

Good weed control practices helped in 1972 even though rains kept many folks out of their fields, preventing preemergence or post-emergence sprays. Annual grasses, particularly those resistant to Atrazine, came on strong and hurt yields in many fields. Chemicals like Lasso, with a small amount of Atrazine for broad-leaved weeds, could have helped... and did for those who could get them on.

Last year's wet fields also focused interest on airplanes for crop spraying and fertilization. Long used by fruit and vegetable growers, air ser-

vice has not really taken on with dairy farmers... even though available in most areas of the Northeast.

As we look ahead, I believe we must bring airplanes more fully into our corn culture. It's true that 1972 was awful, but we frequently have wet Junes... and, nearly every year, I get into weedy corn fields where spring or summer rains had prevented the applications of either herbicides or fertilizers.

You'll want to be choosy in materials that are put on, and be sure your crop sprayer knows his business. But airplanes can do a good job, and they can do it when you can't get into the field with ground machinery.

Soil drainage systems paid off in 1972, whether through tile, ditches, or other methods that got water off the land. Many of us, including experiment station workers, found wet spots in our fields that we had never seen before. So now's a good time to plan additional tile to stave off problems in future years. Plastic tile now on the market improves the ease of installation, and lowers the cost of tiling fields.

Insects

Insects continued to raise hob with corn in the Northeast last year, and they'll be back in 1973. Corn borers were common and caused substantial lodging in some regions. Northern corn rootworm larvae attacked roots in many fields, causing "goose-necking," though wind and rains created the same effect in some places where no rootworms existed. These same larvae developed into winged adults that fed on corn silks, hurting pollination, particularly in later hybrids.

Several chemicals have looked good for northern rootworm with Furadan especially impressive. Disyson, Thimet and Bux are also recommended by New York researchers, while Penn State entomologists add Mocap and Diazinon as further possibilities. All can be applied at planting time.

All of these chemicals can be toxic and have specific restrictions on their use. Be sure to check carefully when purchasing, handling or using these chemicals. Check state extension recommendations and read the label carefully before using.

Disease

Corn diseases have been a frequent topic in this column, and we've recommended the use of "normal" cytoplasm strains of corn to resist southern corn leaf blight. These resistant strains really helped in 1972, with high moisture favoring disease spread.

Since most corn lines were resistant, southern leaf blight wasn't generally harmful, but it was widespread. Cornell plant pathologist Otto Schultz reported its identification in over 30 New York counties, while Joe McGahen, Penn State agronomist, found susceptible hybrids killed in tests all across the state.

Those farmers with susceptible hybrids frequently suffered heavy losses, and we saw some fields nearly killed by late August. But most corn was of resistant normal cytoplasm, rather than the susceptible "T" and substantial losses weren't common.

As usual, we did find occasional

spots of southern leaf blight on "normal" hybrids, but they didn't spread, and we saw no economic losses in such fields.

So for next year, we'd underscore the recommendation to plant only normal-cytoplasm hybrids. There'll be plenty of normal-cytoplasm seed available. In fact, most companies will carry **only** normal-cytoplasm seed.

Check any carry-over seed you have to be sure that it's normal cytoplasm. Several of the worst fields I saw this year were T-cytoplasm hybrids carried over from the previous year by the farmer himself. Planting his old seed got him into trouble and several fields suffered heavy losses. If you've got T-cytoplasm seed in the barn, your best bet is to burn or bury it.

Yellow leaf blight, serious in the past several years, was less of a factor in 1972. It was common over New York State, but rare in Pennsylvania. Damage was minimal, however, and we hope this disease will recede in importance as we move into the normal-cytoplasm corns. They get the disease, but not as badly as "T" hybrids, and damage should not be as severe.

New Diseases

Two new diseases came forward this past season which we'll need to keep an eye on. Eyespot, another leaf-blighting disease of corn, was observed in several areas of the state. It was not serious, but this disease will bear watching. Eyespot has caused serious damage in Wisconsin and elsewhere in past years.

Anthrachnose, another corn leaf blight, has been serious in the southwestern states and was observed this year in New York. It did not do serious damage, but again it's one we'll be watching. It could be serious, if it spread and became epidemic.

Eyespot and anthrachnose **appear** to be newcomers to New York. However, it's difficult to say whether this is the first time they've occurred. We've been looking closely at corn leaves now for several years, identifying every spot, to determine whether we had southern or yellow leaf blights and it may be we're just looking close enough to see some things we've had for years.

No-till

"No-plow" corn fields paid handsomely for some farmers in 1972. It helped them get their corn planted on time, while their neighbors were trying to get their tractors out of the mud.

Problems still exist with "no-plow" corn, but many good farmers and custom operators are working out the details. The keys are still herbicides to kill the competition, and proper planting to get a good stand. Insects and slugs (shell-less snails) were serious in no-till corn and sod. Chemicals are available for their control, but these are expensive. We still need to learn more about no-till corn, in particular how to consistently kill these pests.

Farmers have to be optimists, and so am I. New knowledge from this year, plus our previous experience... and our Northeast corn production (given a half-way decent break in the weather) should improve dramatically in '73.

AAtrex[®] 80W

Herbicide

For season-long weed control in corn and sorghum.

For weed control in certain other crops; in noncrop areas; and industrial sites.

Five Pounds
Net Weight

Active Ingredients: 80%
Atrazine (2-chloro-4-ethylamino-6-isopropylamino-s-triazine)....76%
Related compounds...4%
Inert Ingredients: 20%
Total: 100%

AAtrex 80W is a wettable powder

Caution:
Keep out of reach of children. See additional caution statements on back of bag.

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Herbicide

For weed control in certain crops, ornamental plantings, on industrial sites, and around-the-farm

5 Pounds
Net Weight

Active Ingredient: simazine (2-chloro-4, 6-bis [ethylamino]-s-triazine) 80%

Inert Ingredients: 20%

Total: 100%

Princep 80W is a wettable powder

Caution:
Keep out of reach of children. See additional caution statements on back of bag.

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The only combination that will control panicum and crabgrass right up to harvest. Along with most other annual grasses and broadleaf weeds. Right up to harvest.

AAtrex® plus Princep® is also the only combination that gives you two herbicides that control quackgrass. Important here in the northeast.

Another thing. The natural pair can be tailored to fit your corn management needs. You can spray AAtrex-Princep before planting, at planting, or after planting. Before weeds are up. In a weed 'n feed program, if you like.

Something else makes the natural pair easy to go with. AAtrex and Princep are backed by the same company.

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CIBA—GEIGY

"I just can't believe it. I didn't ever expect to hear from that cake again!"

"Oh, no, not really!"

"Oh, isn't that wonderful!"

"Yesterday when I made that cake, I couldn't have cared less!"

These were some of the exclamations when I called top winners in the American Agriculturist — New York State Grange Yeast Coffee Cake Contest Monday afternoon, October 23, to tell them the good news. Judging had taken place that morning at Hotel Syracuse where State Grange was in session.

The winners told of so many things going wrong when they made the coffee cakes that it's a wonder any of them reached Syracuse! But each Grange county in the state was represented.

Judging for the baking contest finals were Mrs. Betty Kislinger, Nutritionist with Dairy Lea Cooperative's Research and Development Department; Mrs. Diane Szyrnaka, Home Economist with Modern Kitchens of Syracuse, Inc., and Mrs. Ann Maslin, a home economics graduate from Central Square. They worked all morning, each judge scoring every coffee cake individually. If you think it's a "fun" job to taste and score 53 coffee cakes, or anything else for that matter, just try it some time! The judges wouldn't even go to lunch!

When judging was finished and the sealed envelopes opened, we learned that the champion Grange baker in the state was Mrs. Eleanora Winch of Buffalo Valley Grange No. 1383 in Wyoming County. Mrs. Winch chose the beautiful Monarch Electric Range as her grand prize. This was a gift of Monarch Range Company in Beaver Dam, Wisconsin.

As the No. 1 winner, Mrs. Winch received \$48.00 in cash — \$25 from Standard Brands, Inc., makers of Fleischmann's Yeast, \$20 from AMERICAN AGRICULTURIST and \$3 from State Grange. She also received the following grocery prizes which were given to all of the top ten winners:

From Curtice-Burns, Inc. — a case of Blue Boy vegetables.

From Dairy Lea Cooperative, Inc. — a Dairy Lea Gold Box cheese assortment.

From International Salt Company — four packages of Sterling table salt.

From P. J. Ritter Division of Curtice-Burns, Inc. — a "Cumberland" gift box of assorted Ritter products.



Pictured with Mrs. Dorothy Briscoe and Mrs. Augusta Chapman, co-directors of the Yeast Coffee Cake Contest, are the winners present at State Grange. Left to right are Mrs. Briscoe, Mrs. Iva Williamson, Mrs. Magdalene Ceurter, Mrs. Estella Johnson, Mrs. Edna Bates and Mrs. Chapman.

From Standard Brands, Inc. — a gift box of Standard Brands products.

Probably our greatest disappointment of the Yeast Coffee Cake finals was that Mrs. Winch didn't come to State Grange on Tuesday morning for the announcement of winners' names. We shipped the Monarch range to her and know she will enjoy using it for many, many years.

Second-place winner was found to be Mrs. Iva (Paul) Williamson of Binghamton Grange in Broome County. Mrs. Williamson's first choice of the grand prizes was the \$200 cash award given by Agway Inc. She told me Tuesday she would use it toward a trip to Florida, so she and Mr. Williamson can visit her parents whom they haven't seen for three years. Mrs. Williamson will also receive \$33 from Standard Brands, Inc., AMERICAN AGRICULTURIST and State Grange, as well as the grocery prizes listed above.

The day Mrs. Williamson made her coffee cake was a hectic one! "I had such problems," she said. After making four pumpkin pies for their church bazaar and working there all evening, she went home and made the coffee cake after midnight, putting it in the freezer to cool. To make matters worse, she learned that day a favorite uncle had died; this was the second family death in a week. Her husband told me she said, "This cake will never win anything



First-place winner, Mrs. Eleanora Winch, chose the Monarch "Jet-Fan" Convection Oven Electric Range as her grand prize.

Mr. Paul Taber, Director of Public & Governmental Relations for Agway Inc., presented their \$200 cash award to Mrs. Iva Williamson, Winner No. 2.



Shown here are the three judges and a few of the 53 coffee cakes. Left to right are Mrs. Ann Maslin, Mrs. Diane Szyrnaka and Mrs. Betty Kislinger. Dorothy Briscoe stands behind them.

with tears in it!" Back in 1966, Mrs. Williamson placed seventh in our Applesauce Cake Contest, so she must be a pretty good all-round cook.

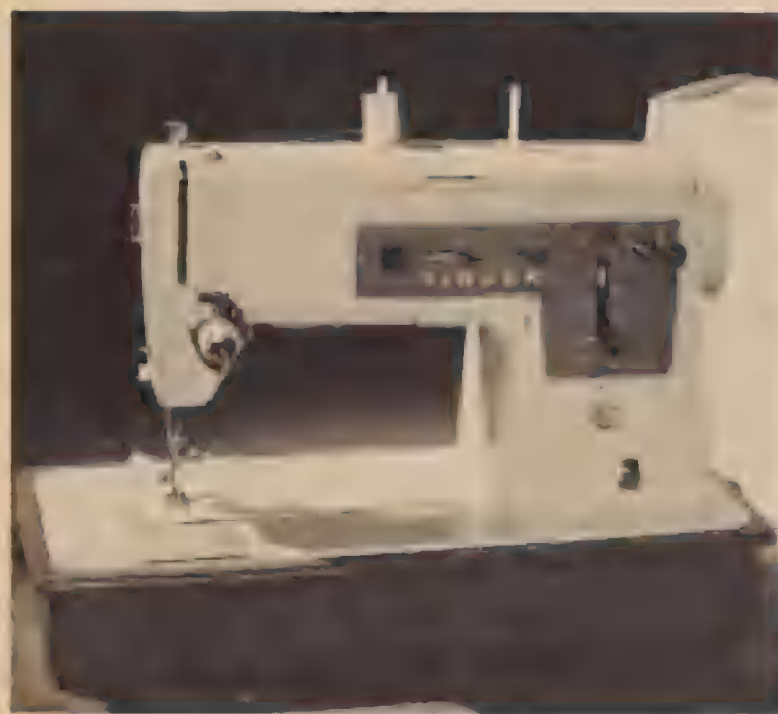
Mrs. Elsie Jager of Florida Grange in Montgomery County was declared Winner No. 3. Just three years ago, Mrs. Jager also came in third at our Yeast Bread Contest. Her grand prize this year was the Singer Portable

Sewing Machine, a gift from New York State Grange. She will get \$24 in cash and the grocery prizes. Again, we were disappointed that Mrs. Jager didn't come to State Grange on Tuesday morning.

Fourth-place winner, Mrs. Edna Bates of Jefferson County was attending State Grange Session. She and her husband are retired farmers

YEAST COFFEE CAKE CONTEST

by Augusta Chapman, Home Editor



Winner No. 3 was Mrs. Elsie Jager. She received the Singer Sewing Machine, a gift from State Grange.

Fourth-place winner, Mrs. Edna Bates, took home the Osterizer Cyclomatic Blender as her grand prize. It was awarded by International Multifoods.



The Anscomatic Camera, given by the GAF Corporation, was won by Mrs. Magdalene Ceurter, Winner No. 5.

and have been Grangers for more than 30 years. This is the first time she has ever done any yeast baking. Mrs. Bates took home the Osterizer 10-speed Cyclomatic Blender, awarded by International Multifoods of Minneapolis. She won \$11 in cash.

Winner No. 5 was Mrs. Magdalene Ceurter from Tioga County. Another long-time Granger (for more than 40 years), Mrs. Ceurter says she does a lot of yeast baking. She has four children, 20 grandchildren and six great-grandchildren; I can imagine how they enjoy all the good things grandma makes. Mrs. Ceurter's grand prize was the Anscomatic 236 XF Electric Eye Camera, a gift from GAF Corporation. We were happy that she was also attending State Grange.

Mrs. Myrtle McIntyre, winner No. 6 and from Washington County, received the 48-piece set of Community Silverplate in "Silver Valentine" pattern, plus a lovely chest for the silver from Oneida Ltd. Silversmiths.

Seventh-place winner was Mrs. M. Adelaide Penfield of Clinton



Winner No. 8, Mrs. Anna Erikson, was awarded the Regal Poly Urn, a gift from International Salt Company.

County. Her prize was the Singer Powermaster Cleaner, also awarded by State Grange.

Warren County's Mrs. Anna Erikson came in eighth and received the Regal 30-cup Poly Urn from International Salt Company.

Mrs. Estella Johnson from Sullivan County was ninth-place winner. We were so glad her daughter brought her to Syracuse to receive the 4-piece Community Coffee Service, presented to her by Mr. Wilson Butler from National Grange Mutual Insurance Company.

Mrs. Johnson said, "Everything went wrong yesterday, and I couldn't

have cared less what happened to that coffee cake! Then when they said I had a long distance telephone call, I expected it would be more trouble." Mrs. Johnson isn't well and cares for her 89-year-old father, so it's easy to see how things can get pretty thick sometimes. We appreciate her making the effort to come to State Grange.

Mrs. Ernest Briscoe of Unadilla, New York, chairman of the State Grange Service and Hospitality Committee, and I directed the contest throughout the year. We were

assisted by two other members of the State Committee, Mrs. Richard Pile, Sr. of Cowlesville and Mrs. Howard Clute of Schenectady, plus hundreds of Pomona and Subordinate Service and Hospitality people.

In 1973, Grangers will make chocolate cakes, the first time since 1956 that this popular dessert has been featured in the American Agriculturist-New York State Grange baking contest. We hope you're planning to enter...and we'll be looking for many of you to be winners next fall.

25 TOP WINNERS

1. Mrs. Eleanora Winch, Buffalo Valley Grange, Wyoming County
2. Mrs. Iva Williamson, Binghamton Grange, Broome County
3. Mrs. Elsie Jager, Florida Grange, Montgomery County
4. Mrs. Edna Bates, Dexter Grange, Jefferson County
5. Mrs. Magdalene Ceurter, Berkshire Grange, Tioga County
6. Mrs. Myrtle McIntyre, Putnam Valley Grange, Washington County
7. Mrs. M. Adelaide Penfield, West Chazy Grange, Clinton County
8. Mrs. Anna Erikson, Stony Creek Grange, Warren County
9. Mrs. Estella Johnson, Bloomingburg Grange, Sullivan County
10. Mrs. Ruth Shaw, Five Corners Grange, Cayuga County
11. Mrs. Wilfred Pulver, Livingston Manor Grange, Columbia County
12. Mrs. Rufus Campbell, Cuba Grange, Allegany County
13. Mrs. Mildred Southard, Lysander Grange, Onondaga County
14. Mrs. Betty Morehouse, Bethlehem Grange, Albany County
15. Mrs. Floyd Champlin, Utsayantha Grange, Delaware County
16. Mrs. Ruth Center, Ballston Grange, Saratoga County
17. Mrs. Marian Johnson, East Schuyler Grange, Herkimer County
18. Mrs. Naomi Denison, Smithfield Grange, Madison County
19. Mrs. Ruth Coleman, Little Britain Grange, Orange County
20. Mrs. Arthur Nanni, Oakfield Grange, Genesee County
21. Mrs. Gladys Pierce, Wadhams Grange, Essex County
22. Mrs. Earl Hart, Giffords Grange, Schenectady County
23. Mrs. Everett Keller, Seifert Corners Grange, Oneida County
24. Mrs. Marion Griswold, South Cortland Grange, Cortland County
25. Mrs. Francis Yerkes, Canandaigua Grange, Ontario County



Mrs. Estella Johnson was the ninth-place winner. She received the Community Coffee Service from National Grange Mutual Insurance Company.

Mrs. Winch's Swedish Tea Ring

- 1 cup milk, scalded
- 1/4 cup butter
- 1/2 cup sugar
- 1 teaspoon salt
- 2 cakes compressed yeast
- 1/4 cup lukewarm water
- 2 eggs
- 4 3/4 cups flour

Pour hot milk over butter, sugar and salt. Crumble yeast into lukewarm water to dissolve. Cool milk to lukewarm and add yeast. Add well-beaten eggs. Beat in flour to make a soft dough. Turn out on a floured board and knead until smooth.

Form into a ball and place in greased bowl. Cover and let rise until double in bulk. When light, shape into tea rings. Place in greased pans, cover and let rise until double in bulk.

To make Swedish Tea Ring, roll dough into a rectangular sheet about one-half inch thick. Brush with melted butter and sprinkle with brown sugar and cinnamon. Roll jelly-roll fashion and shape into a ring.

Place on greased baking sheet and cut with scissors at one-inch intervals almost through ring. Turn slices slightly. Cover and let rise until double in bulk.

Place oven rack on third lowest guide from bottom. Bake at 375°F. for approximately 25 or 30 minutes. While warm, frost with white frosting and sprinkle with chopped nuts.

Editor's Note — This recipe is printed just as Mrs. Winch submitted it with her coffee cake at State Grange Session.

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- You leave NO footprints nor wheelmarks!
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GARDEN TALK

by George and Katy Abraham

Holiday Greetings

Katy and I want to wish every AA reader and Staff member the happiest of holidays. We hope 1973 is kind to each of you.

Care of House Plants

Poinsettias, the No. 1 holiday plant, have been bred to last longer in your home. In fact, the whites, pinks, and new reds last so long that many people tire of them and toss out the plants in July or August. Indoors, the poinsettia likes a uniform supply of moisture at all times. Letting the soil dry out shortens the life of the plant. Hot, dry rooms, poor light and insufficient water will cause the leaves to turn yellow and drop.

Azaleas like a bright window, a good supply of moisture and a cool night temperature. In fact, nearly all house plants will give extra mileage if you keep them cool at night, a temperature of 45 to 50 degrees being ideal.

Fuchsias like a bright window. A lack of light will cause the flower buds and blossoms to drop. Old leggy plants seldom do well indoors, so if yours was outdoors all summer and is struggling along now, cut it back. You can start new plants from tip cuttings, rooted in sand or plain tap water. Yellowing of leaves is due to high temperature, poor drainage or excess water. Give your fuchsia the best window you have and a uniform supply of moisture.

Magnolias From Seed

Many AA readers were surprised to find that their magnolia trees produced a cluster of reddish seeds. Some mistake these clusters for a gall or disease, when actually they're nothing but a cluster of seeds you can start and grow.

Soak the seed in water until the fleshy covering can be removed. Plant seed in a mixture of sand and peat moss now and place in a cold-frame or cool cellarway where they can remain the rest of the winter. They need the cool period to be ready to germinate when spring rolls around.

Pot the seedlings when they are about two inches tall. Plants from seeds generally produce blossoms similar to the parent magnolia. Starting new plants from cuttings is a pretty difficult job for the home gardener, but new plants from seeds is rather simple.

Aphids on House Plants

The No. 1 pest of house plants is aphids, sometimes called "greenfly," "aphis," or "plant lice." The most common species to pester you is the green peach aphid, ranging in color from pink to orange, to yellow or gray-green.

Aphids congregate on buds, blooms and tips of plants. They have sucking or piercing mouth-parts and can pump the juices from plants, causing them to twist or curl. They also secrete a sticky honeydew material which attracts a black, sooty mold. This causes the plants to look like they've been growing in a coal mine.

Control: Nicotine sulfate is still a good control for aphids. Save your cigarette stubs, cigar butts, etc., and mix up a strong tobacco solution. Add a little soap and dip your plants into this. If you're non-smokers, buy a small bottle of nicotine sulfate (sold as Black Leaf 40) and mix a teaspoon to 2 quarts of soapy water and spray your plants.

Order Fruit Trees

While scanning through the nursery catalogs that are rolling in about now, why not give thought to raising some fruit trees. They're both ornamental and practical, and not too difficult to grow. Most catalogs will tell you which fruit trees need a "rooster" tree for cross pollination, which brings up an interesting point. Do all fruits have a "male" tree which never bears a crop?

Most fruit trees do benefit from cross pollination, but when a tree does not bear, it's not always a lack of cross pollination. Let's take the case of one AA friend who has a pear tree which has never set fruit. It could be that his pear tree is too young to bloom or set fruit. Pear trees are notoriously slow in bearing, and we've seen some ten years old or more, which have refused to bear.

If a pear tree doesn't make at least 6 to 10 inches of new growth each year, and if the leaves do not have a good green color, plan on feeding it this spring with a plant food containing nitrogen. You can use an organic fertilizer, a liquid plant food such as 23-19-17, or put a pound of ammonium nitrate around each tree, reaching out to the edge of the branches.

AA Garden Clinic

A reader writes, "This year we want to start our own petunia plants indoors. When is the best time, and how do we do it?"

Answer — If you're planning to set out the plants in May or June, sow seed in March. Use a loose mixture for starting, such as Jiffy Mix, Pro-Mix, or some other artificial soil mixture. Sow seed lightly and do NOT cover. Merely press seed in lightly with a tomato juice can.

The best way to sow a fine seed such as petunia is to take seed, pour it into the palm of your hand, then take the thumb and forefinger of the other hand, grasp a few seeds at a time and drop them onto the surface. It makes little difference whether you broadcast the seed or sow in rows. The secret is not to sow too thickly and not to cover.

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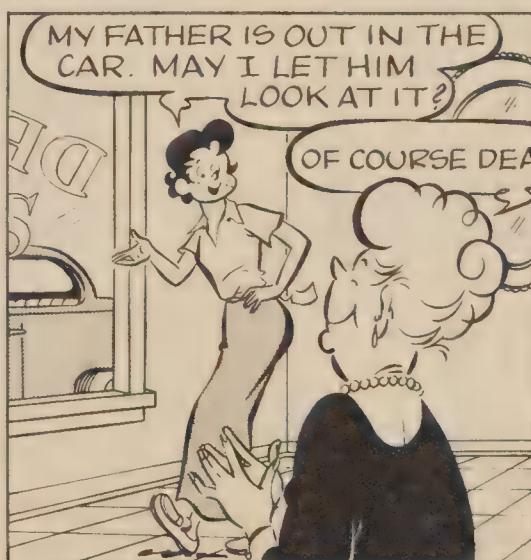
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"Unfortunately, however, for a few years previous to 1971 - even though these basic Eastern programs have been proven to be sound and successful - we did not place the same concerted emphasis on Certified AI Sires and Professional Technician Service as we have traditionally done.

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CITY _____ STATE _____ ZIP _____

DATE _____ SIGNATURE _____



With Our
ADVERTISERS



Allis-Chalmers has added the new economy-priced 8½-pound Model 75 chain saw to its existing line. Features include a 2-cycle air-cooled engine, manual bar and chain oiler, direct-drive centrifugal clutch, and 100-percent needle bearing engine construction.



Beaird-Poulan's newest lightweight chain saw, Poulan XXV DA, has all the features of the XXV, plus automatic oiling. The new model also provides an override feature for manual control of oil allocation on really tough jobs.

Safety-conscious engineers have provided an on-off switch to stop the saw quickly. A specially-designed fuel cap, which vents in only, prevents gasoline drip and vapor lock.

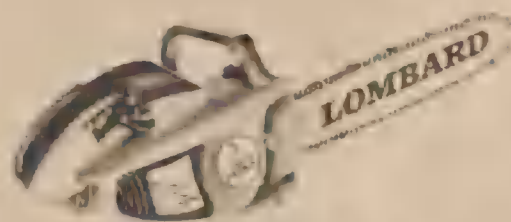
Loosen one screw and the carburetor and oil filter are accessible. Filter is of automotive type for simple cleaning. An innovation to air-cool the spark plug cuts operating costs substantially.



Until now, all chain saws have had just one trigger. Homelite's new XL-2, the first dual chain saw marketed, offers the user two triggers to select for a specific cutting job.

Front trigger is recommended for easier control in close quarters and tricky angles. Rear trigger is suggested for cutting firewood, lumber, felling, pruning, trimming and rough carpentry.

Homelite XL-2 weighs 7 pounds, 1 ounce without bar and chain, and features automatic oiling, a quiet muffler, and rugged die cast magnesium housing.



Newest addition to the Lombar line of chain saws is the 6½-pound Pony, a light but powerful "people-size" saw featuring feather-touch starting, fully automatic oiling, and a professional quality armor-tipped cutter bar in 12, 14 and 16-inch lengths.

Other features include fire retardant muffler, die-cast magnesium housing, and completely protected ignition. Pony's nicely balanced for quick and easy positioning for all cutting, and controls are conveniently located for simplified operation.



Breaking the \$100 price barrier with a gasoline-powered chain saw is McCulloch with the new ultra-lightweight Mini Mac 1. The Mini Mac Electric, also priced under \$100, was introduced by McCulloch earlier.

Mini Mac 1 comes complete with a 10-inch cutting bar and chain and weighs under 8 pounds. Other features include: cast iron compression piston rings, anti-friction needle bearings, "master grip" handle frame with grouped controls, choke-type carburetor, centrifugal automatic clutch and stack-type muffler. Spark arrester and "sound silencer" muffler are optional.



Dozens of jobs that used to call for costly custom labor can be polished off with a Niagara Electric Chain Saw by Generac.

It's available in three models . . . 10, 13 and 16-inch . . . all with plunger type oilers, turbine fan cooling, heavy duty motor, hardened gear train and drive

sprocket, and thermal overload breaker.

No fuel mixing, fouled plugs, dirty carburetor, stuck valves or plugged exhaust ports . . . and it's "Sunday morning" quiet.



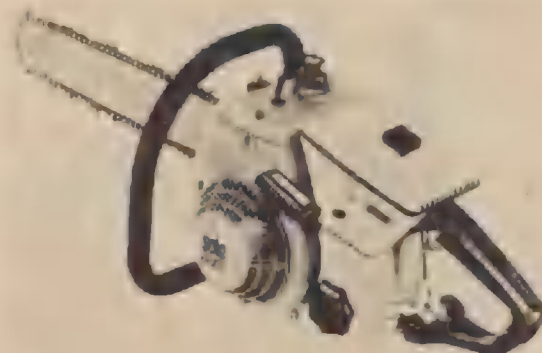
Pioneer Chain Saws recently introduced two new "sure starting" models, the 1073 and 2073. Both are lightweight chain saws equipped with the new and exclusive Pioneer "Easy-Arc" starting system. Difficult starts, caused by pulling a piston against a "sealed cylinder" have been eliminated with this system by allowing internal pressure to be automatically released. The new 1073 and 2073 turn on to work with a simple, two-finger pull.

Other features include a new anti-noise pollution muffler unit and a trouble-saving automatic chain oiling system.



Participating dealers are now offering customers a free carrying case when they purchase a Remington chain saw. For instance, buy the Remington Mighty Mite at the regular retail price and get the carrying case free. Mighty Mite cuts trees up to 2 feet thick, but its easy-starting engine weighs just 6½ pounds.

Free carrying cases are also available with other Remington models during the holiday special that runs through Christmas.



Just five bolts release the entire power plant from the frame of Solo's new 620AV and 650AV chain saw models. To reduce expense and delays in repair and service, the new designs also incorporate several other modular features.

Claimed as another "first" in the industry is the patented dual anti-shock suspension that makes vibration almost nil on the Solo 650AV.

NEW



**ALKALINE
BUFFERED™
CATTLE SPECIALS
FOR ALL BREEDS**

**A major break-through
in today's modern rations
that insures maximum
herd performance.**

ISF — the formulators of Cattle Specials with *Guaranteed Percentages* — have now added an exclusive blend of *alkaline buffers* to their quality vitamin/mineral mixes.

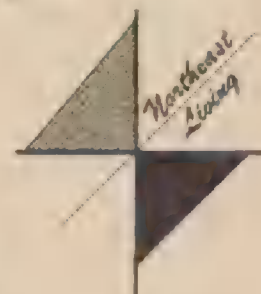
Results: Feeding ISF ALKALINE BUFFERED Cattle Special will lessen the acidity of the rumen. This permits more complete digestion of feed and forage. It's the same principle employed in the use of buffered compounds for over-acidity in humans. Now, your herd can enjoy these same benefits!

To get the complete story on ISF Alkaline Buffered Cattle Special, send for your free brochure today.

International Stock Food Corp.
Waverly, N.Y. 14892 • 607-565-2805

See the famous Horse and Buggy
at the Pa. Farm Show

Section E, Booth Numbers 539-40-41



Horse Judging

Contest scheduled

Five picture classes, an entry form and rules for the Seventh Annual Pictorial Horse Judging Contest will appear in the February issue of the AMERICAN AGRICULTURIST. There will be trophies and ribbon awards for the winners but competition will be limited to residents of the New England states, New York, New Jersey, Pennsylvania, Delaware and Maryland. The contest will start February 15 and end on May 1.

This educational and fun-providing activity annually attracts more than 4,000 entries, and literally thousands of members of numerous horsemen's organizations and 4-H clubs purchase reprints and slides of the contest classes for study and instructional purposes. The picture classes are filling an important gap, especially for leaders, teachers and coaches of judging teams who often find it costly, time consuming and difficult to locate farms and stables where horse classes are available.

Following the close of the contest, subsequent issues of the AMERICAN AGRICULTURIST will publish the official placings, scoring key, reasons and a list of names of trophy and ribbon winners.

Mr. E. Ferris Banner of Milford, N.Y. was plowing out a driveway with a snow blower attachment on his diesel tractor. When the snow started blowing back on him, he stopped to adjust the pipe. After raising the blower he began to crank around the spout. Suddenly the hydraulic lift jumped up jamming his left hand against a steel plate. His heavy work gloves saved the fingers from amputation.

Two days in the hospital for surgery and follow-up care cost him \$678.20 in medical expenses. His combination of North American policies paid a total of \$1624.13 in medical expense and disability income benefits.



When local agent Dick Hoyt of Walton, N.Y. delivered final payment, Mr. Banner gave him this letter of thanks:

I appreciate the help of agent Dick Hoyt with my claim when I injured my hand. I have carried North American Insurance for over 20 yrs. and they have been more than fair with me. I have kept my policies renewed and taken out more for better coverage. It's low cost for the coverage.

E. Ferris Banner

OTHER BENEFITS PAID

Gail Steadman, Fillmore, N.Y.	\$ 410.90	Marilyn J. Mahr, Canajoharie, N.Y.	\$ 831.48
Auto accident—broke pelvis		Auto accident—broke ribs	
Madeline D. Gerson, Endicott, N.Y.	888.00	Walter Howes, Gasport, N.Y.	800.40
Truck accident—injured neck		Hit by tree limb—injured eye	
Charles Schuyler, Franklinville, N.Y.	1132.65	Leon Slate, Oriskany Falls, N.Y.	701.90
Fall—broke elbow		Hunting accident—inj. foot	
Richard R. Murtle, Eden, N.Y.	1303.57	Francis J. Ireland, Marietta, N.Y.	128.57
Hit by branch—head injury		Caught in truck door—inj. leg	
Thomas Lennon, Gale, N.Y.	822.08	William J. Dunn, Canandaigua, N.Y.	1213.90
Kicked by cow—broke leg		Fell off roof—broke knee	
Herbert Hall, Sterling, N.Y.	436.25	Rose M. Scharian, Albion, N.Y.	208.96
Getting off tractor—broke collarbone		Slipped on rug—broke ankle	
Samuel R. St. George, Dunkirk, N.Y.	1545.00	Lynn Cooley, Pulaski, N.Y.	1057.85
Tractor accident—multi. injuries		Knocked down by helper—inj. leg	
Stephen Eckman, Prewsburg, N.Y.	1842.78	Howard Johns, East Worcester, N.Y.	650.00
Farm truck accident—injured head, arm		Struck by hay bale—loss of eye	
Loren A. Cornish, Pine City, N.Y.	214.28	Eugene L. Conklin, Hopkinton, N.Y.	525.10
Kicked by cow—injured knee		Poison oak—infected legs	
Arthur M. Butt, Norwich, N.Y.	133.55	Lolita Sullivan, Esperance, N.Y.	173.21
Hunting accident—multi. puncture wounds		Tripped on rug—inj. shoulder	
Stephen Wynn, Smyrna, N.Y.	1098.02	Isabelle S. Shepherd, Ovid, N.Y.	1194.30
Using saw—cut fingers		Pressure cooker blew up—burned leg	
James A. Fredette, West Chazy, N.Y.	120.58	Raymond Morsemann, Avoca, N.Y.	1514.30
Throwing hay down—inj. knee		Fell from scaffold—inj. knee	
Frank E. MacIntire, IV, Cortland, N.Y.	212.72	Henry L. Hughes, Bath, N.Y.	2210.71
Motorcycle acc.—broke ankle		Tree fell—broke hip	
Herbert A. Liddle, Delhi, N.Y.	661.08	Clarence Kander, Riverhead, N.Y.	1915.00
Truck accident—inj. head, shoulder		Fell off roof—broke back	
Kenneth Eder, North Collins, N.Y.	441.42	Thomas Litzendauer, Callicoon, N.Y.	712.84
Fell off wagon—inj. knee		Thrown off tractor—inj. shoulder	
Buddy Lee Rust, Burke, N.Y.	350.84	Douglas Aman, Candor, N.Y.	396.15
Kicked by cow—broke finger		Motorcycle accident—inj. head, hip	
Michael J. Nolan, Ilion, N.Y.	1150.00	Donald C. Wilson, Comstock, N.Y.	1215.72
Slipped in snow—broke leg		Thrown from snowmobile—broke leg	
Robert Bronner, Jordanville, N.Y.	1080.00	Ellery Schrader, Walworth, N.Y.	2112.17
Playing basketball—inj. knee		Slipped on steps—inj. leg	
Harold Robbins, Sackets Harbor, N.Y.	174.27	Forrest Dates, Red Creek, N.Y.	652.76
Kicked by cow—inj. hip		Kicked by cow—broke leg	
John P. Pennock, Carthage, N.Y.	183.00	Garland N. Shisler, Bliss, N.Y.	377.03
Hit by stone—broke tooth		Fell through hay chute—inj. shoulder	
Reginald Tuttle, Lowville, N.Y.	207.50	Emerson Kipp, Warren Center, Pa.	790.17
Shd into conveyor—cut foot		Fell off wagon—broke ribs	
Edward C. Yancey, Lowville, N.Y.	1601.81	Joseph M. Liedl, Somerville, N.J.	1003.90
Hit by back hoe fan—cut hand		Truck accident—inj. neck, back	
Isidore Stith, Munsville, N.Y.	377.92	Joseph A. Zebrowski, Jr., Sussex, N.J.	390.00
Caught in pit wheel—broke leg		Cow kicked machine—broke tooth	
Dorothy Snell, Canastota, N.Y.	749.73	I. Reginald Wood, Hyde Park, VI.	320.00
Slipped off steps—broke wrist		Pulled thru stanchion—inj. chest	
Paul Kubrich, Webster, N.Y.	270.85	Thomas Bailey, Craftsbury, VT.	111.50
Caught trash truck blade—inj. hand		Sharpening scythe—cut finger	

Keep Your Policies Renewed

NORTH AMERICAN ACCIDENT INSURANCE COMPANY

(In New York State)

NORTH AMERICAN COMPANY

FOR LIFE AND HEALTH INSURANCE (In Other States)

GENERAL OFFICES: CHICAGO, ILLINOIS

SAVINGS BANK BUILDING

ITHACA, NEW YORK

READER SERVICE

So's



READER SERVICE CLAIMS RECENTLY SETTLED

NEW YORK

Mr. Russell Hughteling, Loch Sheldrake	\$ 17.50
(refund on dictionary)	
Mrs. Theresa Bestyl, Fabius	4.40
(refund on order)	
Mr. John Grankiser, New Berlin	19.80
(refund on order)	
Mr. Richard G. Nagle, Herman	9.00
(refund on subscription)	
Mrs. Leonard Miller, Fort Plain	16.00
(refund on order)	
Mrs. George Woodhouse, Castorland	61.90
(discount on order)	
Mrs. John A. Donaghy, Philadelphia	37.85
(refund on order)	

PENNSYLVANIA

Mrs. George McFarland, Latrobe	16.35
(refund on dress)	

NEW HAMPSHIRE

Mr. Wilbur Cummings, West Swanzey	120.00
(payment for hay)	

VERMONT

Mr. Ruth A. Cobb, Bristol	11.26
(refund on order)	
Mrs. Bradford Lane, Montpelier	640.00
(insurance claim settled)	

MASSACHUSETTS

Mr. F. D. Hager, Needham	10.06
(refund on order)	

"FAD" PRODUCTS

Whenever unusual attention or publicity is given to the benefits of such things as organic or natural foods, watch out for unscrupulous promoters. There are always people who are looking for a chance to make money by preying on those who are convinced that their well-being depends on their eating food products grown and/or processed a certain way.

There is no federal law or regulation as yet defining organic, natural or health foods. The general assumption is that organic food is free of preservatives, emulsifiers and artificial ingredients; and that it is produced without the use of pesticides or artificial fertilizers.

Natural foods are considered to be those with no additives, but with less emphasis on soil and plant environment.

Health foods fall into yet another category and might include dietetic, vegetarian and other products not necessarily free of artificial chemicals.

According to a Department of Agriculture adviser, food labeled as "organic" is not likely to contain more vitamins than would a similar food not considered or labeled organic.

Based on a recent USDA survey, the consumer will probably pay more for organic foods regardless of whether they are purchased in a supermarket, a health food store, or a natural food store.

LITTLE OLE BOOK SHOP

A subscriber wrote that she sent a check for an encyclopedia to Little Ole Book Shop in Cheyenne, Wyoming. She never received the merchandise or a refund.

When we could get no response to our letters, we checked with the Cheyenne Consumers Bureau, Inc. They advised that the shop is no longer in business. Any subscriber who has had a similar problem with this concern should send details to:

Wyoming Postal Inspector
U. S. Post Office Building
2120 Capitol Avenue
Cheyenne, Wyoming 82001

NO DECALS

A subscriber has been trying for four months to get some small American flag decals for which she sent \$3.50 to Patriot House in Mahwah, New Jersey. She has written with no results, and we have had no replies to three letters written to this firm.

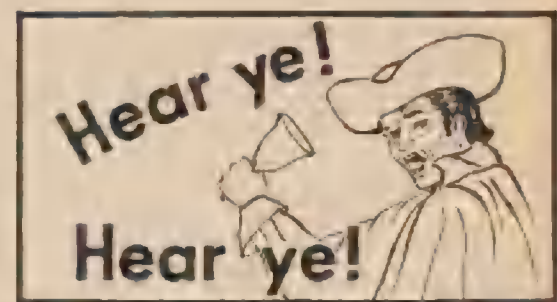
Perhaps this outfit should read its own ads which encourage patriotism through use of flag decals on stationery, books, etc. We would like to see them use one on a letter to us.

PATTERNS

A reader attended a demonstration put on by the Institute of Pattern Design, Inc., and paid \$36.35 in cash for a "Dot Pattern System" with the understanding that it could be returned for a full refund within seven days.

She did return it the next day, receiving an acknowledgment and promise of a refund. She heard nothing further.

Our efforts to contact the firm have been unsuccessful, and we have been unable to learn anything about its operations. We have referred our subscriber to the New York State Bureau of Consumer Frauds and Protection.



What have you got to lose? The answer could be "time and money" if you enter some of the widely advertised contests. You can take a free chance to win a lot of money. You are advised that you are tied for first prize—but so are thousands of other contestants.

Then come tiebreaker puzzles and offers of even larger prizes, accompanied by spiraling fees. If you decide to continue, do so with your eyes wide open—and be prepared to charge off the cost to entertainment.

If you are in the market for a farm structure or a large piece of equipment that you need by a certain date, be sure to get a commitment in writing from the supplier that it will be delivered and available for use by a specific date.

Verbal promises made by a salesman do not carry much weight when you try to cancel an order, get a refund of a down payment, or ask for compensation for losses suffered due to poor installations or unnecessary delays.



(Left to right:) Robert and Bill Titus. Agway free-stall barn in background was built in two sections and Agway silos added one at a time to meet their needs for expansion.

“\$98 additional profit per cow, per year. That’s what Agway Dairy Enterprise Service means to us!”

Robert and Bill Titus, father-and-son partnership, farm 140 acres near Windsor, N. Y. They crop about 90 acres, with another 50 in improved pasture. Their herd averages 126 cows, with 62 milking. It wasn’t always that way. As Robert Titus puts it:

“When Bill came into the operation, it was obvious that we had to begin making more milk from the same number of acres. One of our first moves was to switch to free-stall barns and a milking parlor. Agway helped us all along the way . . . with designs and building. And they helped us get credit for our first free-stall barn.”

“What the new barns and parlor really meant,” adds Bill, “is that we could double the size of our herd without doubling the labor.”

“Sounds simple,” says Robert, “but another big move was to put our cows on Agway Liquid Protein Supplement, fed free choice. When we saw how much LPS they were consuming, we started talking to Enterprise Salesman Tom Redmond about our whole feeding program. And that’s how we got onto the

Tom Redmond, Agway Dairy Enterprise Salesman, works closely with the Tituses on every phase of their expansion program.



Agway Total Dairy Ration Profile.

“After a few months, things really started happening. First thing we noticed was that our fresh cows were peaking earlier . . . and higher.”

“And they’ve been sustaining longer,” continues Bill. “As of now, we’re getting an extra \$98 per cow per year, income over feed costs—and this is clear profit.”

Agway Dairy Enterprise Service is the blending of a farmer’s resources with Agway resources in the best combination to increase profit for the farmer who wants to get the most from his management effort.

Why not find out what it can all mean to you? Call Agway today.

Farm Enterprise Service

AGWAY

Here are 7 ways Agway can help you cut costs and increase dairy profits.

Have you overlooked any of them?

1 How much will the Agway Total Dairy Ration (TDR) Profile increase your net income over feed costs?

Agway recently reported a TDR test involving 338 Holsteins in 14 dairy herds. Results showed that a program based on a TDR Profile increased milk production by 500 pounds per cow, per year. At the same time, feed costs were decreased and net income increased by \$65 per cow, per year.

Since the test was run, reports from the field indicate that even more substantial gains may be made. In the case of a dairy farm near Windsor, N.Y., for example (see preceding page), a TDR Profile Program increased net income by \$98 per cow, per year.

The point is that TDR works. And it will work for you.

How does TDR work?

The Agway TDR Profile is a computer program that picks the right combination of forage, grain and Agway Ratio:Right Feed to satisfy your cows' nutrient requirements for maintenance and to build towards top milk production. The program begins with an analysis of your forage by the Agway forage-testing service. It then considers the total protein, energy, calcium/phosphorus ratio and fiber needs of your cows plus the forage-to-grain ratio. Finally, it weighs the needs of your herd against your forage/grain input. From that point it can be determined how best to utilize your forage and grain to achieve top income over feed costs.

TDR can pay off for you whether you use manufactured feeds or grist. First, consider manufactured feeds.

2 If you use manufactured feeds, Agway Ratio:Right Feeds and Concentrates offer a new way to save feed dollars and maintain herd health.

Ratio:Right designates a line of feeds in which the *ratio* of energy to protein has been carefully selected to balance the feedstuffs produced on Northeastern dairy farms.

Ratio:Right Feeds offer the assurance of meeting both the energy and protein requirements of your herd, with no wasteful and dangerous overages or unproductive and equally dangerous shortages. With Ratio:Right Feeds, your herd gets only the protein and energy needed to balance your forage/grain program, and to maintain top production.

Your Agway Dairy Enterprise Salesman will help you choose the proper Ratio:Right Feed for your herd. Ratio:Right Feeds are available with energy:protein ratios ranging from 0.7 to 7.3. There's one that will closely fit any forage/grain program in the Northeast—including *yours*.

Of course, you may grow your own grain and feed grist rather than manufactured feeds. If that's the case, the Agway Optimum Grist Formulation Program is made to order for you. Let's see how it works.

3 If you feed grist, the Optimum Grist Formulation Program is your best way to lowest feed costs and highest production.

This program starts with your grain as a base. Then, by computer, it considers how to add Agway Ratio:Right Concentrates, along with molasses and minerals, to formulate the least-cost dairy ration you can use to realize top production and profits from your herd. It assures you that this ration meets all your herd's requirements for protein, energy, fat, fiber, calcium and phosphorus. And it does it all without laborious and time-consuming calculations on your part.

Here's how the program works for you: Your Agway Dairy Enterprise Salesman helps you establish the nutritional specifications you want from your grist. These, along with current prices and maximum and minimum levels for grain, concentrates, minerals and molasses, are run through a computer. The results will indicate the best way for you to use your grain for maximum returns. It's now a simple matter for Agway to produce a grist that's tailor-made to meet your herd's needs for maintenance and top production.

Of course, rations which are calculated to be adequate may not in fact be so, because of insufficient consumption. The least-cost way to make sure your cows are getting enough protein to achieve and sustain good production is to feed Agway Liquid Protein Supplement (LPS) free choice.





4 LPS—low-cost protein assurance to protect production and profits.

LPS is the most economical way to assure your cows the protein they need to attain and sustain top milk production. And it has been demonstrated that cows will *increase* their consumption of LPS when available protein provided by feed is below their needs, and will *decrease* consumption when protein is adequate. Fed free-choice, LPS is a reliable indicator of just how closely your feed matches your cows' protein needs. If consumption of LPS by lactating cows is heavy, your whole feeding program should be re-evaluated.

In addition to protein, LPS supplies phosphorus, vitamins and trace minerals essential to health, condition and high milk production during the winter months. As mentioned, it's preferably fed free-choice, but it's also useful as a top-dressing on low- or medium-quality hay. LPS not only increases the nutritional value of the hay, but also makes the hay more palatable to encourage greater consumption.

5 Making more milk is one route to higher profits. Maintaining top-quality milk is another.

Obviously, the size of your milk checks depends on the quality as well as the quantity of your milk. And when you have the Agway Guardian Milk Program going for you, you can be sure the milk from your bulk tank retains all the quality of the milk your cows produce.

The program includes a complete line of bactericides and sanitizers with the right combination of products for each job. And the program includes the equipment you need to do the job as quickly and efficiently as possible. A centralized control station, for instance, that automatically cleans your milking equipment and bulk tank while you do something more profitable. And along with the best chemicals and equipment, Agway gives you all the information you need to use them to the best effect. Count on Agway to help you solve any problem that stands between you and a low bacteria count.

If you'd like to know more about the Agway Guardian Milk Program and how it can help you, Agway can fill in the details.

1972-73 STORAGE DISCOUNTS

Period	Per unit discount N-P-K ammoniated grades.	Per lb., blends spread on the land.
December 18- January 20	8¢	.4¢
January 22- February 24	6¢	.3¢

6 Don't overlook the savings in buying and storing fertilizer now.

Agway fertilizer plants simply don't have enough room to store all the fertilizer that will be needed in your area next spring. So Agway will pay you to store what you'll be needing on your own farm. If you order before December 16 for immediate delivery, you save 10¢ per unit. A 6-24-24 fertilizer, for example, adds up to 54 units of plant food, or a saving of \$5.40 per ton. (Discounts apply to bagged and bulk ammoniated grades and to blends spread on the land.) And you don't have to pay for it until April 2, 1973.

In addition, the fertilizer you store on your farm through June 30 will be replaced if lost due to fire or to water used in fighting fire. As another bonus, you're sure of having the fertilizer you need on hand when you need it.

For the current discount, figure your requirements now and place your order before December 16. Your Agway Enterprise Salesman will be happy to help you determine your needs. And while you're at it, why not ask him to review your whole crop management program for '73?

7 The right decisions made now can improve your crop yields in '73.

A kitchen conference with your Agway Dairy Enterprise Salesman now could clarify your own thinking and pay off in more productive use of your land, your time and your investment next year.

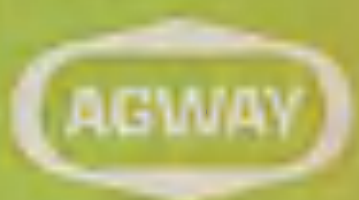
For example, should you expand your acreage of Saranac and Iroquois alfalfa? What are advantages of direct seeding? Do your soil tests show that you need lime? And what about P & K? Should you apply Nitran solution nitrogen? Corn starter at planting time? Any bad weed problems this past year? What are you going to do about them next year?

Talking to your Enterprise Salesman now can bring up some important questions that could lead to important decisions before it's too late. And with your Enterprise Salesman at your elbow, you can take advantage of the newest technical data, the least-cost route to maximum yields, the latest facts on discounts. You can schedule spreading services well in advance.

To set up such a conference, just call Agway.



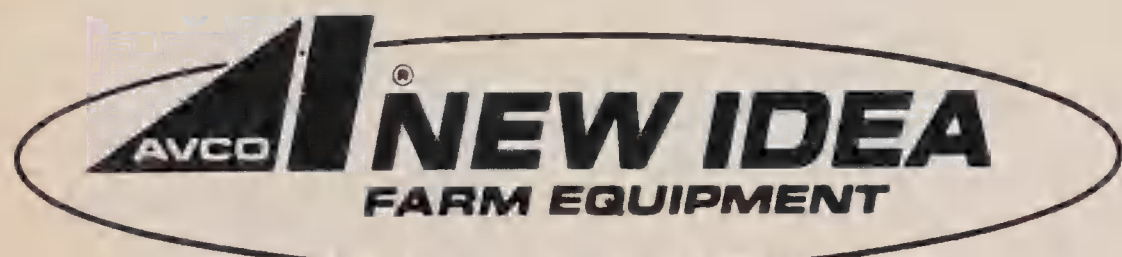
Agway
Farm Enterprise
Service
can help you
increase
your profits.
Call Agway
any time.



The 116-bushel New Idea Spreader. Heavyweight of the compacts.



116-bushel spreader shown with optional upper beater



Coldwater, Ohio 45828

Unless you're a farmer who needs a really big manure spreader, this compact 116-bu. model may be all you need.

Loaded with heavyweight features for long, trouble-free life, it's got a solid wood box — sides, bottom and end — backed by New Idea's famous Warranty on Wood. Heavy-duty drive train, undercarriage, and gear box. Thick welded A-frame hitch. Heavy-duty axles. The works! And it uses the same heavy paddles as other New Idea Single Beaters!

And a great selection of options, too. Including a hydraulic endgate or pan attachment for handling sloppy manure. Extra heavy-duty conveyor. Or the optional upper beater that increases the capacity, and levels out the load and improves the spread pattern.

Cash in on the generous trade-ins now being made by New Idea dealers everywhere on this great compact spreader. It's built so strong it acts twice its size!

There's a good idea behind every New Idea.

And there's a good deal at your nearby New Idea dealer:

CONNECTICUT

TORRINGTON
Hawet-Sibley, Inc.
WALLINGFORD
Cooke's Equip. Co., Inc.

MASSACHUSETTS

WILLIAMSTOWN
Wilson Williams Co.

NEW HAMPSHIRE

WALPOLE
Pinnacleview Farm Equip., Inc.

NEW YORK

ALBION
Bentley Bros.
ALEXANDER
Alexander Equipment Co.
AMSTERDAM
Florida Implement Co., Inc.
AUBURN
Main & Pinckney

AVON
Avon Farm Equipment, Inc.

BAINBRIDGE
Bainbridge Tractor Sales, Inc.
BALDWINVILLE
R. C. Church & Sons, Inc.

BASOM
Bernard Howard

BLOSSVILLE
Jay's Sales and Service, Inc.

BURKE
Burke Farm Supply

BYRON
Byron Enterprises, Inc.

CANANDAIGUA
Coryn Farm Supplies

CANDOR
Ward & Van Stry, Inc.

CATTARAUGUS
Denton Masher

CHITTENANGO
Chittenango Farm Supply

CINCINNATUS
McKee Equipment Co.

CLINTON
Clinton Tractor & Implement Co., Inc.

CLYDE
Costello Farm Service

CLYMER
Carlton Damcott

COBLESKILL
Harry Rubin & Son, Inc.

CORTLAND
Cain's Tractors & Implement, Inc.

DEPAUVILLE
Carl C. Fry, Inc.

DEPOSIT
Hinman Mills, Inc.

DE RUYTER
H. W. Cook Farm Service, Inc.

EAST AMHERST
Harvey H. Pfennig, Inc.

EAST PALMYRA
O'Meara Tractor, Inc.

EAST SPRINGFIELD
Homer Fassett

FILLMORE
Phillippi Pontiac Sales, Inc.

FORT PLAIN
Snyder Petroleum, Inc.

GENOA
Barnhart & Franklin

GILBERTSVILLE
Mussen, Faber & Teed, Inc.

GOVERNMENT
Gouverneur Coop Assn., Inc.

GREENWICH
E. T. Briggs & Son

HAMMOND
Donald E. Robinson & Sons

HARPURSVILLE
E. E. Mathews & Son

HENRIETTA
John P. Haglin & Sons

HOLLAND
Lewis Machinery Service
Tri-County Supply

HORNELL
Thacher Bros.

INTERLAKEN
Interlaken Equipment Co., Inc.

JAMESTOWN
Kiantone Farm Supply

JAMESVILLE
Craner Tractor & Impl. Co.

JASPER
Bullock's Hardware

LEICESTER
A. R. Christiano Hdw. & Imple. Co., Inc.

LISBON
Geo. & Betty Kentner
Farm Supplies

LOCKPORT
Taylor's Hardware

LOWVILLE
Foster Millard

MARTVILLE
Kyle Farm Machinery

MELLENVILLE
Tippie Equipment Co.

MELROSE
Calhoun Equipment Co., Inc.

MENDON
Saxby Implement Co.

MILLERTON
S. E. Kimball & Sons, Inc.

MONTOUR FALLS
Pleasant View Farms

NEWFIELD
Rudolf Mazourek

NICHOLS
Thetga Farm Supply

NORTH CONHOCTON
Robert Miller Co.

NORWICH
Chemango Ford Tractor, Inc.

ONEONTA
Oneonta Tractor Sales

ONEONTA
Oneonta Tractor Sales

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Oneonta Tractor Sales

SCHENECTADY
Howard F. Getman, Inc.

SELKIRK
Zakens Farm Equipment

STRYKERSVILLE
Harmon & Almyer

SYRACUSE
Reliable Farm Supply, Inc.

TROY
Alpine Ford Trac. & Equip., Inc.

WATERFORD
Harris Brothers

WELLSVILLE
Paul F. Culbert & Sons

WESTERNVILLE
C. Finsters Garage

WESTFIELD
Joseph LaPorte

WEST VALLEY
Farm Supply & Produce Co., Inc.

WHITNEY POINT
Manwaring Equipment Co.

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Manwaring Equipment Co.

WHITNEY POINT
Manwaring Equipment Co.

VERMONT

CUTTINGSVILLE
B. J. Stewart, Inc.

EAST RANDOLPH
L. W. Greenwood, Inc.

ENOSBURG FALLS
Andy Bonneau, Inc.

FAIR HAVEN
Young's Farm Equip.

HARDWICK
Rowell Bros., Inc.

HARTFORD
L. L. Reed

MIDDLEBURY
Champlain Valley Equip., Inc.

ORLEANS
Desmarais Equip., Inc.

RICHMOND
Sumner Farr

SAINT ALBANS
Schibi Farm Supply Co.

WAITSFIELD
Gaylord Tractor Sales



